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Vol. XCIX.



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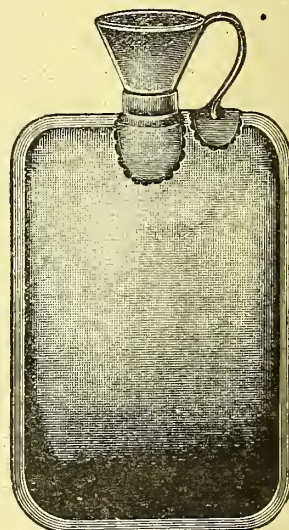
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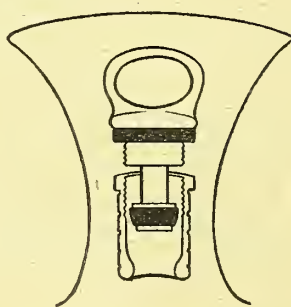
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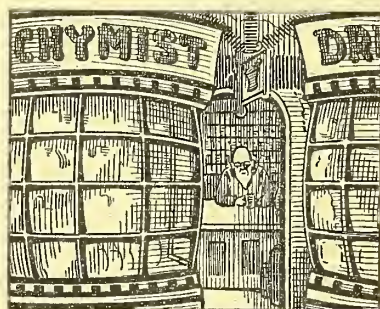
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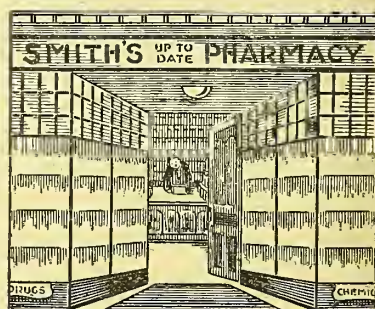
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Maw's



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*Wholesale
Terms;*

Minimum—1 gross 6d., 44/- or mixed order to same value, 1 gross 1/-, 80/- subject to customary discount on quantities. £2 4s. 0d. and up carriage paid.

Works;

75 Southgate R. London N.

Telephones:
HOLBORN 5503.
CITY 65

Telegrams:
FORSHAPCO,
WESTCENT,
LONDON.

**FORD
SHAPLAND
& CO. LTD.**

**LABEL &
GENERAL
PRINTERS**

FINE ART SHOWCARDS, CARTONS,
ENVELOPES FOR SHAMPOO POWDERS,
CORN SILK, ETC.

*"Sol-Vo" Sanitary Paper
in Rolls & Packets.*

AGENTS FOR THE REGISTRATION
OF TRADE MARKS.

**GT TURNSTILE
HIGH HOLBORN
LONDON W.C.1**

STOCK CARTONS

A splendid New range of
HIGH-CLASS COLOUR DESIGNS
in all sizes and styles

WHITE DEMY AND PRINTED WRAPPINGS

Delivery out of Stock
at Shortest Notice

Write for Samples and Prices

ALF. HARRISON & SONS

Chemists' Printers

224 BURLEY ROAD, LEEDS
ALSO AT LONDON

Telephone: Leeds 26674
Telegrams: "Ideas Leeds"

Telegrams: "Harrison
"Suave London"

There's a lot to be

So Easy!

Such lovely shades

LUTON
OVER 40 COLOURS
Straw hat dyes

NOMORE SHABBY HATS
Dye these with "Luton" Dyes. Over 40 different shades. Permanent. Economical and perfect in every way.

STRAW HAT DYES
Over 40 beautiful shades to choose from. Dull or Glossy. Entirely British. Economical. Permanent. Price 1/4 per bottle with brush.

ING NEW DYES FOR

NO HAT TOO SHABBY
No matter how faded or shabby your hat is, it is worth dyeing with "Luton" Dyes. Permanent color. Economical. Easy to use.

LUTON
STRAW HAT DYE
Why wear a faded hat? Make it into all interest and perfect color with "Luton" Dyes. Permanent. Economical. Easy to use. Price 1/4 per bottle with brush.

That old hat you're fond of
Dye it with "Luton" Dyes. Permanent. Economical. Easy to use. Price 1/4 per bottle with brush.

THE LAST STRAW
Yes, but don't throw it away. Strikably alter the shape of it with "Luton" Dyes. Permanent. Economical. Easy to use. Price 1/4 per bottle with brush.

LUTON
ALL SHABBY HATS MADE NEW.
If your straw hat has become shabby why not dye it with "Luton" Dyes at home and convert it into a new one? By using "Luton" dyes you are sure of success at the first attempt and a perfectly lasting colour to your choice.

Look at the help you get!

EVERY one of the advertisements surrounding this border has been designed and written with the object of creating sales for "Luton" Straw Hat Dyes. Therefore they are advertisements designed and written to help you—to bring sales to your establishment—for they must be taken in a personal sense as far as your own district is concerned.

LUTON

OVER 40 COLOURS Straw Hat Dyes

"ENTIRELY BRITISH—BRITISH ENTERPRISE—BRITISH LABOUR—BRITISH CAPITAL."

These famous hat dyes make a dual appeal to every lady i.e., on the score of economy and on fashionable grounds, for with "Luton" Straw Hat Dyes it is possible to make a many seasons' old hat extremely modish, and what is equally important, the hat will, in appearance, be just like new.

"Luton" Hat Dyes are permanent, no matter what shade is chosen. Supplied in either Dull or Glossy Series.

"Luton" Straw Hat Dyes are easy to sell, they afford a good margin of profit, and what is equally important, they please the customer. A special non-inflammable series is supplied for export.

ALL CASES AND CONTAINERS FREE.
Write for Trade Terms, Patterns and Full Particulars of attractive advertising matter for display, etc.

WHITAKER & CO., Colour Works, KENDAL.
London Office & Showrooms, 61 & 62 CRAVEN HOUSE, KINGSWAY, W.C.2.

"AURORAL" COLD-WATER DYES.
Another Whitaker Product which is in great demand. It is the finest cold-water dye in the world for dyeing delicate and costly fabrics. Good results always obtained.

"LUTON" FABRIC DYES.
A splendid hot-water dye for all materials—easy to use, perfect results assured, 24 Beautiful Colours.

An INTERNATIONAL COMMERCIAL AUTHORITY

IT is generally recognised by all in pharmacy and the drug, chemical and allied trades that the only worth-while business journal for the retailer, the wholesaler, the manufacturer and the exporter, is

THE CHEMIST & DRUGGIST

Perhaps, however, the international character of its business influence is not fully realised. So it will be of interest to subscribers and advertisers alike to learn that copies of "The Chemist & Druggist" are BY REQUEST sent regularly to H.M. TRADE COMMISSIONERS at—

Calcutta, India.	Sydney, Australia.	Guadalajara, Mexico
Cape Town, Cape Colony.	Toronto, Canada.	(British Consulate).
Johannesburg, Transvaal.	Port of Spain, Trinidad.	Riga, Latvia "
Melbourne, Australia.	Wellington, New Zealand.	Zagreb, Serbia "
Montreal, Canada.	Winnipeg, Canada.	

It is also dispatched regularly, in accordance with instructions, to the COMMERCIAL SECRETARIES OF H.B.M. LEGATIONS at—

Berne.	Liege.	Peking.	Vienna.
Brussels.	Lima.	Rio de Janeiro.	Warsaw.
Bucharest.	Lisbon.	Rome.	Washington,
Buenos Aires.	Madrid.	Santiago.	Yokohama.
Constantinople.	Oporto.	Shanghai.	
Copenhagen.	Paris.	The Hague.	

Our Journal is also found a necessary part of the office equipment of SECRETARIES OF BRITISH CHAMBERS OF COMMERCE at—

Alexandria, Egypt.	Hong-Kong, China.	Paris, France.
Athens, Greece.	Jaffa, Palestine.	Rio de Janeiro.
Baghdad, Mesopotamia.	Jerusalem, Palestine.	Sofia, Bulgaria.
Basle, Switzerland.	La Paz, Bolivia.	Tangiers, Morocco.
Basrah, Persian Gulf.	Marseilles, France.	Tunis.
Buenos Aires, Argentine.	Milan, Italy.	Valparaiso, S. America.
Bushire, Persia.	Monte Video, S. America.	Vienna, Austria.
Genoa, Italy.	Naples, Italy.	
Haifa, Palestine.	Nice, France.	

This striking proof of a world-wide acknowledgment of commercial standing and authority accounts in a great measure for the unassailable position of "The Chemist and Druggist" as an advertising medium.

For all particulars regarding available space, special positions, coloured insets, etc., write to—

THE PUBLISHER, THE CHEMIST AND DRUGGIST,
42 CANNON STREET, LONDON, E.C. 4.

Branch Offices:

MANCHESTER, ENGLAND.
SYDNEY & MELBOURNE,
AUSTRALIA.

*"Summer Foresight
yields Winter Profit"*

HOT WATER BOTTLES

British made, grey rubber supported with texture sheeting — reinforced seams — improved flush screws. The finest example of manufacturing skill combined with expert selection of material. Prices on request for I.R. Red finished Bottles with brass eyelet, and also Red Moulded Bottles with hanger.



8×6 10×6 10×8 12×6

2/11 3/3 3/9 3/7 each

2/10 3/2 3/8 3/6 „ in 1 dozen lots.

2/8 3/- 3/6 3/4 „ in 3 dozen lots.

12×8 12×10 14×8 14×10

4/2 5/- 4/9 5/10 each

4/1 4/11 4/8 5/9 „ in 1 dozen lots.

3/11 4/9 4/6 5/6 „ in 3 dozen lots.

Chemists' own name **Moulded** on quantities of not less than 3 dozen.



SUPREME QUALITY — COMPARE PRICES

Special Quotations for Export.

AYRTON, SAUNDERS & CO., Ltd.
Manufacturing Chemists, **Liverpool, Eng.**

Telegrams: "Sundries, Liverpool."

Telephone: Royal 4861.

TRUFOOD



*Continuous
propaganda to the medical
and nursing professions*

THE list of media carrying whole page announcements of Trufood effectively covers the professional elements called upon to advise mothers as to the choice of an infant food. No organ of importance is omitted, and there are regularly used—*The Lancet, British Medical Journal, Nursing Mirror, Nursing Times, Medical Officer, Journal of State Medicine, etc.*

These advertisements are supported by personal calls upon doctors and nurses, and by constant circularisation and sampling.

Every announcement carries the slogan:

OF ALL CHEMISTS

In 10 oz., 20 oz. and 36 oz. tins
at 2/-, 4/- and 7/-

We count upon your support in creating goodwill with the buying public.

TRUFOOD LIMITED, THE CREAMERIES, WRENBURY, CHESHIRE

London Offices : Lever House, Blackfriars, E.C.4

Castols

Nice as Chocolate



"No more
Castor Oil"

C This is little Bobbie Castol—the "Mascot" with the smile—who has become a well-known feature of Castol publicity.

THOMAS KERFOOT & Co. Ltd.
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, England.
ESTABLISHED 1797

COPYRIGHT

Ashes

(BO

THE MOST WONDERFUL OFFER IN THE HISTORY OF PERFUMERY

Ashes & Roses Compacte Powder has long been the Standard Compacte Powder in every part of the World, and it is because of its continued and increasing success, and demand by ladies of discrimination in all Countries, that we have now placed upon the market a complete series of *Ashes & Roses* Preparations.

SPECIAL BONUS OFFER FOR SEPTEMBER & OCTOBER ONLY

In order to stimulate your interest in *Ashes & Roses* during the opening weeks of our National Advertising Campaign, we are making a special offer, full particulars of which are contained in the *Ashes & Roses* Folder which will be posted to every Pharmacist on 8th September. The Bonus Parcel means a profit to you of

PROFIT **70%** PROFIT

Advertisements will appear during this year in the papers shown on opposite page and will be specially heavy during November and December.

**LINK UP WITH THIS POWERFUL PUBLICITY CAMPAIGN BY
STOCKING ASHES OF ROSES PREPARATIONS IMMEDIATELY**

Let your Customers know you stock *Ashes & Roses*
by prominently displaying the Handsome Window Bill
which we are sending you.

A. BOURJOIS ET CIE, Ltd., 66 CARTER LANE, E.C.
PARIS NEW YORK SYDNEY

Roses

INCREASING THE DEMAND



IMPORTANT.—Please note change in price of Miniature size perfumes

Price per doz. 8/- Retailed P.A.T.A. 1/-

This change took effect on the 27th August, 1923, as per circular.

BOURJOIS ET CIE, Ltd., 66 CARTER LANE, E.C.4.

PARIS

NEW YORK

SYDNEY



EVAN WILLIAMS' ORIGINAL Henna Shampoo

*One of our Customers
says:*

"We are always pleased
to handle Evan Williams'
Specialities for, amongst
other reasons—

"We never get any
complaints.

"They are quick
sellers.

"You leave the retailer
a good margin of profit."

The EVAN WILLIAMS CO., LTD.,
18 & 18a, Ogle St., Foley St., LONDON, W.1.

DEARBORN (1923) LTD.

37 Gray's Inn Road,
LONDON, W.C.1.

Toilet Specialties.

	Price per doz.	Selling Price to Retailer P.A.T.A.
PILENTA SOAP ...	10/-	1/-
A complexion soap.		
PROLACTUM ...	10/-	1/-
For the lips.		
PARSIDIUM JELLY ...	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ...	22/6	2/6
A dressing cream.		
BORANIUM ...	22/6	2/6
A hair tonic.		
CLEMINITE ...	22/6	2/6
For a face lotion.		
COLLIANDUM ...	22/6	2/6
For a face tint.		
PERGOL ...	22/6	2/6
A deodorant.		
TEKKO PASTE ...	22/6	2/6
Camphor cream.		
STALLAX ...	22/6	2/6
For a shampoo.		
JETTALINE ...	31/6	3/6
For clearing the skin.		
PHEMINOL ...	36/-	4/-
A depilatory.		
MENNALINE ...	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ...	31/6	3/8
A face cream.		
STYMOL ...	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ...	22/6	2/6
Hair-curling fluid.		
BARSYDE ...	22/6	2/6
Dandruff eradicator.		
TAMMALITE ...	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ...	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ...	22/6	2/6
For whitening the hands.		
HARAPOSA ...	22/6	2/6
Nut oil shampoo.		
COCONOIDS ...	31/6	3/6
For figure development.		

The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES	{ 36/-	4/-
For obesity.	{ 58/6	6/6
SOFT PALERIUM...	45/-	5/-
For wrinkles.		
LIQUID NAIL POLISH ...	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

COLONIAL DEPOTS AND AGENCIES.

Australia: ALL WHOLESALE, & DEARBORN (Australia),
Ltd., Grace House, Clarence Street, Sydney.
South Africa: LENNON Ltd, Cape Town, etc.
SIVE BROS. & KARNOVSKY, Johannesburg.
India: FRAMJEE & SON, Bombay.
SMITH, STANISTREET & CO., Calcutta.
New Zealand: SHARLAND & CO., Auckland & Wellington.
South America: DEARBORN (South America), Ltd., Calla
Salta 264, Buenos Aires.
Straits Settlements & Federated Malay States: MEDICAL
HALL, Ltd., Singapore.

The 'ESSENFLOUR PRODUCTS Ltd.'

*Distillers of Essential Oils and
Manufacturers of Perfumery Products*

MYSORE - - S. India

have been appointed as from the 1st. Sept.,
1923, Sole Consignees and Distributors of

MYSORE GOVT. SANDALWOOD OIL

Satisfying all pharmacopœa and possessing an excellent aroma.

*Samples and prices will be readily supplied
on application to our correspondent at*

'PERFUME HOUSE' 6-8 Beauchamp Street, London, E.C.1

Telephone : HOLBORN 2499.

Telegrams : "EKDUM LONDON."

**JAKSON'S
PEPPERMINT, LAVENDER
& CAMOMILE OILS**
are the BEST.

Produced and Prepared by
**THE LARGEST GROWERS & DISTILLERS
IN ENGLAND.**

Distillery :
J. JAKSON & CO. (Mitcham Rd., 1921), LTD.
Mitcham Road, WEST CROYDON.

AGENTS for the U.K. :
F. NEWBERY & SONS, LTD.
27 & 28 Charterhouse Square, London, E.C.1

BEAUTIFUL PACKAGES

If it were only for the sheer beauty of their packages Melba Toilet Preparations would sell readily. But the contents of these packages are good and pure and possess beautifying qualities not to be found in any other cosmetics.

Melba Toilet Preparations are largely advertised, and every assistance is given to the chemist, in the way of beautiful showcards and window display material, to push their sales.

Write for Trade Terms and Full Particulars.

Sole **A. CONNELL & CO. (Dept. CD)**
Consignees: **MELBA HOUSE, WENLOCK RD., LONDON, N.1**

Telephone : Clerkenwell 7266.

MELBA
TOILET
PREPARATIONS

How is your stock of Modern Make-up Tints?

	Wholesale Doz.	Retail each
Les FARDS de L. T. PIVER, artistic metal case, in the following shades: Bouton, d'Or, Canaque, Capucine, Cardinal, Glycine, Lobelia, Solferino, Mais, Nil and Rose Chine	8/-	1/-
LIP STICKS, metal case (in light and dark red)	5/-	7½d.
CRAYON HINDOU (Eyebrow Pencil) in metal case, made in black, brown, chatain, green and blue	4/-	6d.
ROUGE POMPEIA } in leatherette case	12/-	1/6
ROUGE de THEATRE } in gilt metal case	28/-	3/6
ROSE de THEATRE } in china holder	8/-	1/-
BLANC de THEATRE }		

Parfumerie : L. T. PIVER, PARIS

London Depot : 102 DEAN STREET, W.1. Telephone No. : Regent Street, 5260.

Get them from the

MANUFACTURERS

**Essential Oils
Flower Oils
Fruit Essences**

(MADE FROM THE FRUIT).

PRICE AND QUALITY RIGHT

(Stocks in London).

SLONECK & CO.

18 Southwark Street,
London Bridge, S.E.1.

Phone : HOP 1551.

STILL ON TOP

ANZORA still keeps on top for quality and demand. A bottle sold to a new customer means satisfaction and a regular customer. Don't disappoint, always keep a stock handy, and be ready to oblige.

TRADE TERMS:

12/- doz. - retail at 18/- 20/- doz. - retail at 30/-

ANZORA

MASTERS THE HAIR

Anzora Perfumery Co., Ltd., Willesden Lane, London, N.W.6.

"SAMBOY" HAIR TONIC

is made from the purest materials which combined, provide a genuine tonic, unrivalled in its beneficial effect upon the hair and scalp. It is called "a wonderful grower," and may be used by young and old without harm; is especially good in relieving irritation, and cleansing the scalp. It preserves the colour of the hair.

To be obtained from maker on sale or return terms, but is a ready seller. Everyone likes "Samboy."

"SAMBOY," 22 STRAND, RYDE, I.W.



In Green Bottles, Registered.

Frozoclone

REGD.

The Original and Best
SOLID EAU DE COLOGNE

has many imitators but no equal.

Its elegance and utility appeal to all.

Made from the finest Eau de Cologne. Refreshing when rubbed on the forehead, pleasant as a smelling bottle, invaluable in a heated atmosphere and when travelling. A real acquisition to every household. Excellent after shaving. A boon to those in hospital.

Retails at **3s. 6d.** Minimum (P.A.T.A.) Per doz. **32/-**

SPECIAL TERMS FOR BONDED SHIPMENT OF 4 gross minimum.

SOLID ENGLISH LAVENDER

TERMS AS FOR FROZOCLONE.

Similar size and packing
as "FROZOCLONE"
but in **BLUE** glass.



THE IDEAL FRUITY LAXATIVE

In Pastille form. Delicious, Reliable, Effective.

Retails at **2s. 3d.** minimum. Per dozen **21s.**

REDUCED PRICES FOR EXPORT.



THE NAIL POLISH

with new and distinctive features:
Softens the cuticle. Brilliant polish.

Retails **1s. 9d.** Per dozen **15s.**

R. DEMUTH'S LABORATORIES

68 Salusbury Road, and Montrose Avenue, London, N.W.6



TRADE MARK

XMAS PERFUMERY

NOW is the time to "think ahead" and plan Xmas trade requirements. As usual, T. F. Bristow & Co. are early in the field with many novel and attractive lines for the Season of Goodwill.

BRISTOW'S

DEVONSHIRE VIOLETS

AMBRÉ DEVIN

ORCHIDÉES

IDESIA

QUEEN OF THE MEADOW

HONEYSUCKLE

ROSE OF ENGLAND

OLD ENGLISH LAVENDER

also in a large variety of handsome cut-glass bottles packed in silk-lined caskets, combination boxes of Soap and Perfumery, etc.—goods of the high standard of excellence with which the name of Bristow has been associated since 1777, presented in the most dainty packings. There are attractive lines to suit every class of trade and the requirements of all pharmacists. They are goods which sell at sight and create goodwill.

We are exhibiting at the
CHEMISTS' EXHIBITION
St. Andrew's Hall, GLASGOW,
from Sept. 17th to 21st.

T. F. BRISTOW & CO. LTD.

Established 1777

Clerkenwell, LONDON.

CONSCIENCE PROFIT RATIO TURNOVER

You score each point when you sell your customers

ARMAND Cold Cream Powder

(That wonderful new complexion powder)

It is the one absolutely harmless face powder that has an original character. Because of the small amount of Cold Cream combined with it, it really clings.

**IT MAKES YOU A DOUBLE MONEY
PROFIT ON EVERY BOX.**

**ARMAND DIRECT ADVERTISING
MAKES SURE SALES FOR YOU.**

**NO TRANSACTION IS EVER CLOSED
UNTIL YOU'RE SATISFIED.**

It is always our intention to treat our dealers as interested partners in the same business, and to eliminate from our relations the little annoyances that irritate and upset all of us in our business dealings.

Should you ever feel that we have failed to do this in your own case I would appreciate a personal note calling the laxity immediately to mind and can assure you that it will have personal attention.

E. O. Gilmore

Managing Director.

FLORIAN & ARMAND LTD., Queensway, Ponders End, Middlesex

Specify when ordering :—

"ENGLISH PROPHYLACTIC"

"ADDIS in the Blue Box"

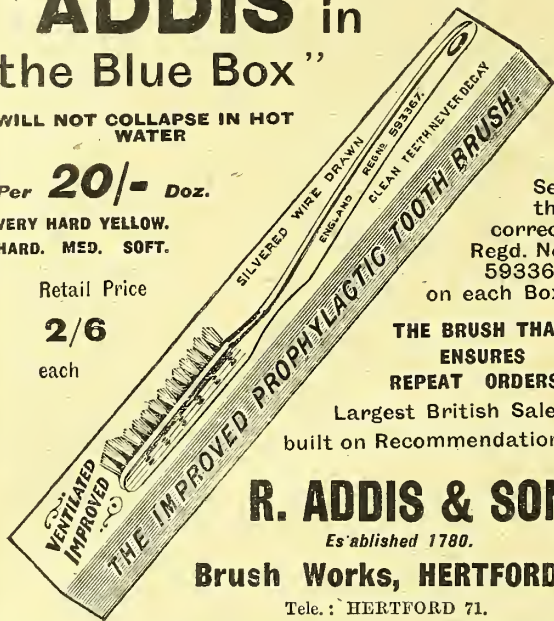
WILL NOT COLLAPSE IN HOT WATER

Per **20/-** Doz.VERY HARD YELLOW.
HARD. MED. SOFT.

Retail Price

2/6

each

See the correct
Regd. No.
593367
on each Box.THE BRUSH THAT
ENSURES
REPEAT ORDERS.Largest British Sales
built on Recommendation.**R. ADDIS & SON**

Established 1780.

Brush Works, HERTFORD.

Tele.: HERTFORD 71.

OLDEST FIRM OF TOOTH BRUSH MANUFACTURERS
IN THE WORLD.

Sold by the following Wholesale Druggists :—

LONDON.

Amor, W. W., Son & Co.
Barclay & Sons, Ltd.
Butler & Crispe
Baiss Bros. & Co.
Britton, Malcolm & Waymark, Ltd.
Bourne, Johnson & Co., Ltd.
Geo. Curling, Wyman & Co.
Dakin Bros., Ltd.
Edwards, W., & Son
Ferber, Robt., Ltd.
Galen Manufacturing Co., Ltd. [Ltd.
Hewlett, C. J., & Son
Healey, Royle & Co.
Hay, J. B., & Co.
Higgins, G. & Co.
May, Roberts & Co. Ltd.
Newbery, F., & Sons Ltd.
Osborne, Garratt & Co., Ltd.
Reuter, R. J.
Rippin, J.
Sangers [Ltd.
Schurze, F., & Co.,
Solport Bros.
Sutton, W., & Co.
Taffs, H. F., & Co.

BIRMINGHAM.

Parton, Son & Co., Ltd.
Southall Bros. & Barclay

CARDIFF.

Newbery, F., & Sons, Ltd.

GLASGOW.

Burns, Petrie & Co.
Lorimer & Moyes, Ltd.
Munro, M'Laren & Sutherland.

HULL.

Sayers Silcox, Cuzner & Co., Ltd.

LIVERPOOL.

Ayrton, Saunders & Co., Ltd.

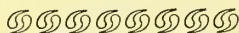
MANCHESTER.

Clunie & Co.
Chemists' Sundries, Ltd.
Harper, C. W.
Harrison, Chas., & Sons
Heath Bros.
Millner, R. M.
Place & Co.
Quilliam, J., & Co.
Woolley, Sons & Co. Ltd.

NEWCASTLE.

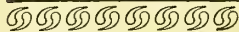
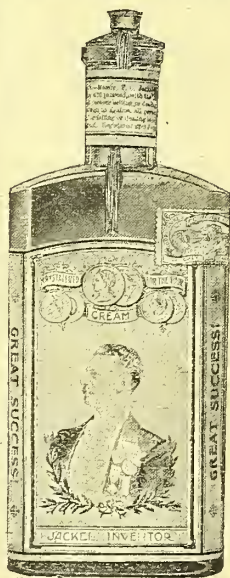
Hall Forster & Co. Ltd.

"Jackel's Cream"

(without Grease)
for THE HAIRSold Everywhere
Established 1883.

"Jackel's Cream"

fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headwear. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

Prices for Wholesale and Export
Houses on application.**Jackel et Cie (of Paris)**
Ltd.,Sauchiehall Street,
GLASGOW.**CRYSTALLISED**
7oz. CREAM 10 oz.
Trade Mark attached to each
bottle.

SPECIAL OFFER

Brownie Gillette Razor
Genuine Gillette Blades
Rollfix Stropping Machine

Auto Strop, Ever Ready, &c. Blades.

ALL LINES TO SUIT CHEMISTS.

Write for Reduced Bargain List.

Terms: Net cash with order or Approved References.

L. FRANKENBERG, 15, STONEY LANE,
LONDON, E. 1.

Why "Watts" Blades excel.

British—
and Best.**3/6**per doz.
allowing
50% PROFIT
on cost for
the dealer.FOR GILLETTE-TYPE
AND AUTOSTROP-TYPE
HOLDERS.

"WATTS" Razor Blades have a super-keenness that ensures perfect shaving. They are British, and most important of all, high-quality blades, made by a firm established over 150 years. The first grade steel used is the finest procurable.

12 Perfect Blades
in Every Dozen.

Sole Manufacturers:

JOHN WATTS,Dept. 3, Lambert Works,
SHEFFIELD.London:
24 Redcross Street, E.C.1.

*Satisfied
Customers
are Regular Customers*

Keen competition necessitates keen buying; but to ensure satisfied customers quality must be maintained

**"Specialty"
OINTMENTS**

Write for samples and prices of our B.P. and other Ointments—you will be convinced that for quality their value is unequalled.

All these preparations are packed in attractive decorated tins and screw-capped glass or opal jars

Attractive Showcards supplied.



PACKED GOODS

All classes of Medicinal and Toilet Lines, including Toilet Paraffins and Brilliantines, Cold Creams, Petroleum Jellies, etc., in most attractive packings at extremely fine prices.
SEND FOR LATEST PRICE LIST.

Specialty Dept.
Anglo-American Oil Co. Ltd.

Albert Street,
Camden Town, London, N.W.1.

Telegrams :
"Nufinjol, Norwest, London."

Telephones :
Hampstead 4046 and 4047.

APOLOGY

WE very much regret the delay which has occurred in the deliveries of our new $\frac{1}{2}$ oz., 1 oz. and 2 oz. Watch-shape "Elster Platz" Cologne and Old English Lavender Water.

The demand for these lines, which are described by large numbers of our customers as the smartest packs and best sellers on the market, has been overwhelming, and unfortunately a large consignment of bottles has been held up by the Dock Strike.

We are pleased to say that we have now had delivery of this consignment and it will be sufficient to cover all orders actually in hand.

We thank our numerous customers, whose supplies have been held up, for their courtesy and consideration and can only say that the delay which has occurred has been quite beyond our control.

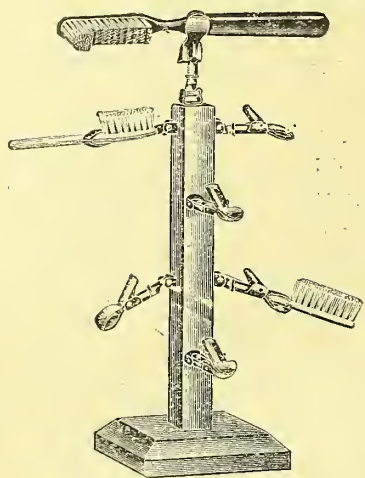
We shall be pleased to receive fresh enquiries for these lines, but cannot undertake to make further deliveries until about the end of September.

In the meantime we advise you to write for particulars at once and place your orders as early as possible.

89 Great Eastern Street,
E.C.2

SPURWAY et Cie., Ltd.
CANNES-GRASSE, RIVIERA.

A BOON TO WINDOW DRESSERS POLISHED OAK DISPLAY STANDS



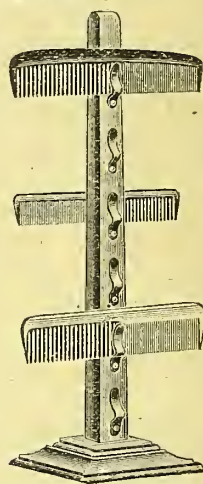
Height 10 inches, to hold
7 Tooth Brushes, each 3/9

SILENT SALESMEN
FOR THE
PHARMACY.

*Suitable for Counter
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Highly Polished
Nickel Fittings.

Also in Stock OAK
PEDESTALS, all sizes
from 1/3 each.



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hold 12 Combs, each 3/-

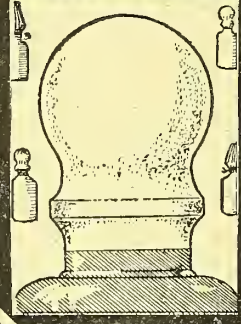
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WHOLESALE DRUGGISTS' SUNDRIESMEN,

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SELF - FIXING
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BROMLEY, KENT.**

PROMPT DELIVERY.



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HAIR BRUSHES

Tooth, Nail & Shaving Brushes

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OILS of BAY, CEDARWOOD, PATCHOULI, PEPPERMINT,
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Series of
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Preparations*



SERIES which fairly bristles with good points. That's the Elfrida—a name now known throughout the country, standing for men and women as a symbol of consistent excellence in toilet preparations. And they will never be disappointed.

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Products are Reliable

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Equals Grade "A" Milk

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Packed in 1's and 1/2's Glass & Monopots, etc.

Nature's own: Sweetmeat, Food,
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"We have had quite a successful
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**FINEST QUALITY
LEMON SQUASH**

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Labels with customer's own name if desired.

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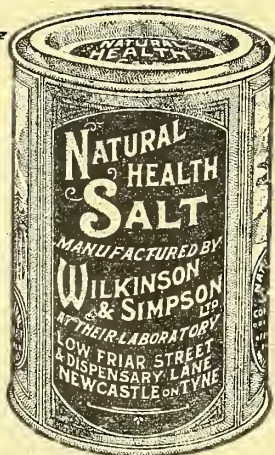
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**NATURAL
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*Its popula-
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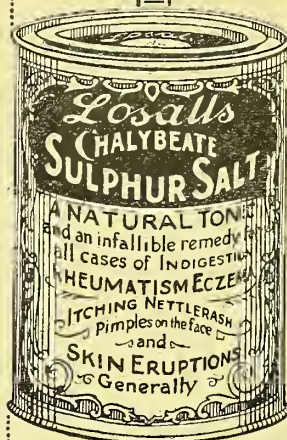
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Sells freely and readily

**PROFIT 50%
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4 oz. tins 1/-, 8/- doz. net.

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Bottles 2/6, 20/- " "

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THERE is no prepared diet on the market that the Chemist can more conscientiously and profitably recommend for Infants, for Growing Children, for Invalids and the Aged, and as a delicious beverage food for Healthy Adults, than

HOOKEER'S

THE MALTED MILK WITH THE NICEST FLAVOUR

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FOR ALL AGES AND CONDITIONS OF HEALTH AT FIRM AND PROTECTED PRICES.

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We issue a list of WHOLESALE HOUSES who keep above in stock, if for any reason you have difficulty in obtaining supplies, please send postcard direct to us, and a list will be sent to you by return.

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Showcards, etc., free on application.

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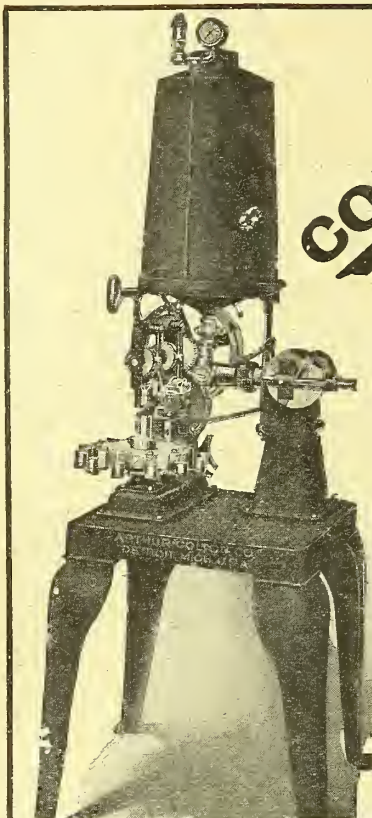
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(FOR FLUIDS OR SEMI-FLUIDS ONLY)

This machine has been designed for use in works where a large output is required and can be used for substances varying from water consistency to the semi-fluid state. The Container is designed to carry sufficient air pressure to facilitate the flow of compositions which are somewhat sluggish, such as ointments, glue, rubber cement, etc., and where heat is necessary, the container can be fitted with a hot-water jacket.

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Tank Capacity ... 8 gallons
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Machines for every purpose.

The Illustration shows
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THE SPEEDIEST MACHINE ON THE MARKET.

Using two nozzles this machine can fill with
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Also Makers of the well-known JACKSON PATENT GRINDERS.

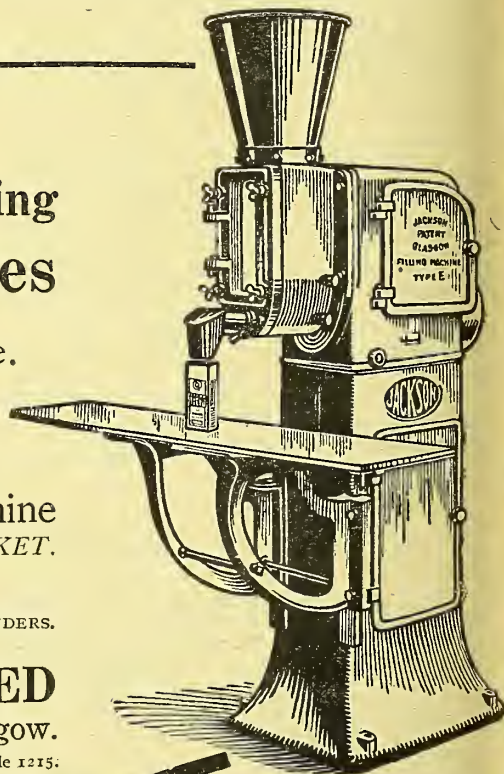
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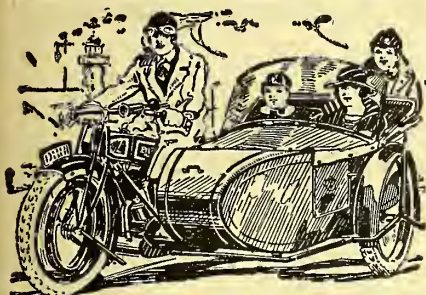
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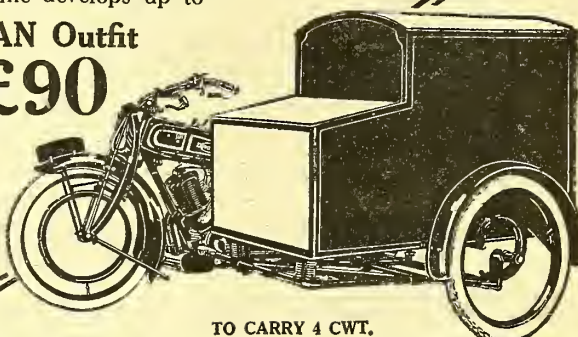
A demonstration and trial will convince you of the utility and value of the DUNELT—write now for Illustrated List. Easy Payment Terms can be arranged if desired, and we can give

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Now is the time of year to overhaul your Tablet Compressing Machines and to consider your requirements for the coming season.

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BOTTLES of every description.

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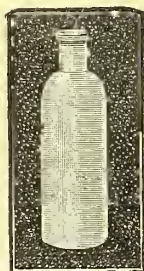
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We hold stocks of seasonable glassware, and if you will be good enough to advise us what you can do with, we will promptly deal with your enquiry. Quick delivery.

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These bottles are of beautiful finish, and are made in a glass which is free from arsenic and lead and which has been specially designed with a view to reducing the alkalinity to a minimum. All the stoppering is hand finished in order to secure a perfect seal.

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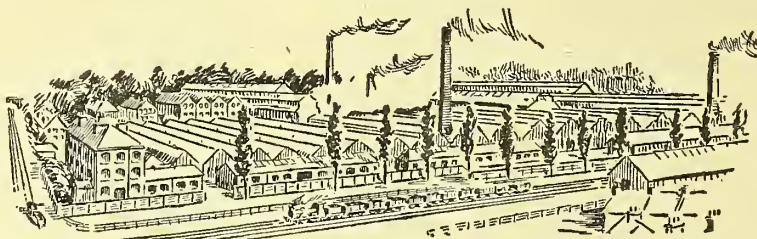
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PILL BOXES

SUPPORT HOME INDUSTRIES.

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BOXMAKERS TO THE
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A Quick Selling Line!! Lavender **MOTH TABLETS.**

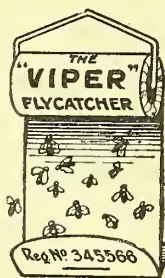
Saves Clothes, especially
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Price:- 3 dozen @ 5/- per doz.
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Reg. Trade Mark



In three widths:
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The daintiest Flycatcher
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The Flycatchers your customers like.

The VIPER and FLYSAC sell rapidly because your customers know and like them. They command a good price and carry a generous profit. They give complete satisfaction and thus help to consolidate your reputation for quality.

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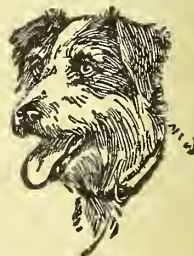
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To CHEMISTS and DRUG STORES, IT PAYS to sell **FARMER'S "BAITED"** **PHOSPHOR PASTE**

Made from an improved formula. It is the BEST RAT and MOUSE POISON
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SHERLEY'S DOG MEDICINES INSECT POWDER SHAMPOO, and LACTOL (P.A.T.A.)



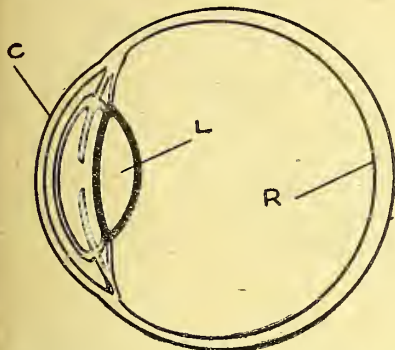
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There is a trade discount of 33 1/3% off all retail prices, together with a BONUS on all orders of £3/10/0 and over.

Topax Foot Remedies are prepared by scientific processes from pure selected chemicals, ensuring satisfaction to the user.

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FOOT SHAMPOO ..	-/6, 1/3	CORN PLASTER .. -/9
FOOT POWDER ..	1/-	CORN STRAPS .. 1/-

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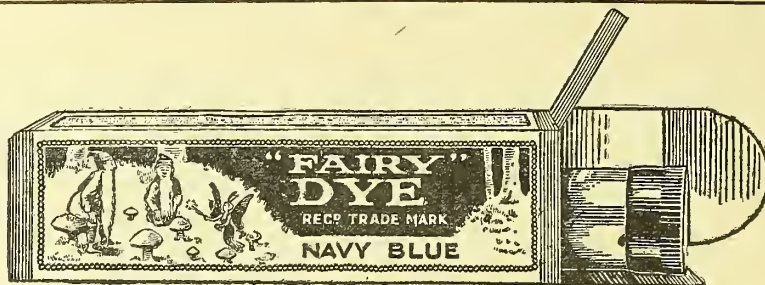
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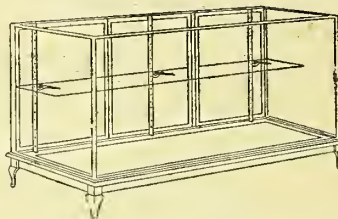
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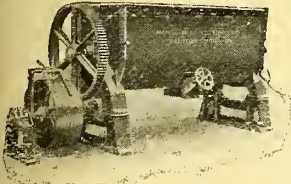
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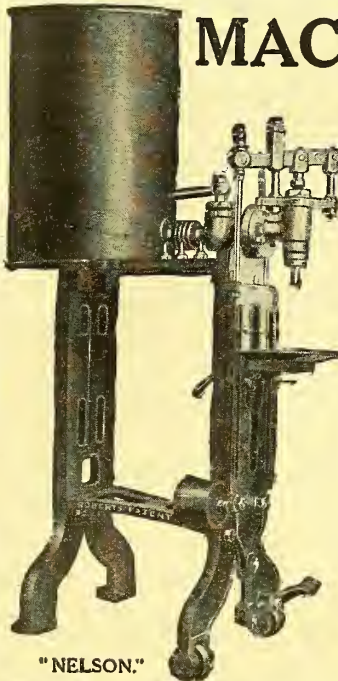
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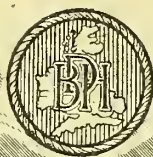


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Known, Admitted, and Approved Remedies

FOLLOWING the practice which we started some years ago we propose to reserve space in the forthcoming issue of *The Chemist and Druggist Diary*, 1924, for the registration of formulas for "known, admitted, and approved remedies." Under the Medicine Stamp Act, 1812, such medicines, when sold by chemists, are exempt from medicine-stamp duty so long as the formulas are contained in recognised works of reference and proprietary rights are not claimed. A clear indication must be given, on the label of the medicine, of the published formula as evidence that the medicine is of the kind to which the exemption refers. *The Chemist and Druggist Diary* was the first book of reference recognised by the Board of Customs and Excise, after the British Pharmacopœia, and the *Diary*, being published periodically, affords an exceptional opportunity for chemists to add any fresh formulas for medicines coming within the definition of "known, admitted, and approved remedies." Chemists who desire to take advantage of this arrangement should forward true copies of the formulas with the titles and directions for use so that we can include these in the *Diary*. We shall attach the correct reference numbers to the formulas when they are published. The formulas, which must be written on one side of the paper only, should be sent not later than October 13, addressed to the Editor, *C. & D.*, 42 Cannon Street, London, E.C.4.

Summary of this Issue

The more notable items only are dealt with

The Week's News

Unusual features will be noticed in the poisoning cases reported on p. 318.

Mr. Louis K. Liggett has given a forecast of this year's profits of Boots Pure Drug Co., Ltd. (p. 323).

Representatives of the Association of Manufacturers of British Proprietaries, in giving evidence before the Select Committee on the South African Medical, Dental and Pharmacy Bill, strongly resist the proposals in regard to disclosure of formulas (p. 322).

Articles and Communications

Answers to legal queries occupy p. 343.

Organotherapy is the subject of an article on p. 325.

'Our Subscribers' Symposium includes some hints worth remembering (p. 342).

The purchasing of drugs for China is the subject of an original communication by an expert (p. 336).

"Xrayser II," discourses on Insurance dispensing, recent additions to the Oxford Dictionary, and other topical matters (p. 329).

Trade and Market Matters

The Board of Trade have post-dated the Referee's award in the formaldehyde decision, and importers have been called upon to pay the 33½ per cent. import duty. (p. 333).

The shortage in eucalyptus oil, which has been apparent for several months, has now become acute, and according to information we have received from Australia, prices will be on a higher level for a prolonged period (p. 331).

Ideas

We invite contributions to this section.

Those chemists who are distributing the *C. & D. Business Propaganda* pamphlets ought to be given diplomas of merit. These chemists are working for the good of the whole trade. The wording of the pamphlet is perfect, and with a few alterations would suit our conditions in Australia perfectly. (19/5.)

More use for the stoppering of bottles both for solids and liquids could be made of the bayonet-jointed stopper. These stoppers can be made to fit very closely, and the contents of the bottle, if hygroscopic or volatile, stand a better chance of preservation. I think the public would appreciate this form of stoppering owing to its simplicity, but it would probably require some years of training to get them to see it. L. S. (28/5.)

Many thousands of pounds are annually lost through deterioration of goods made of indiarubber, much of which might easily be saved by a regular inspection. Care should be taken not to squeeze rubber which has become hardened, although this is invariably the thing a person is apt to do. Rub the material over with a pad of wool soaked in glycerin and lay aside for a day or two, when the rubber will have regained its original elasticity.

In making *mistura ferri* there is an omission in the *modus operandi* which if inserted would be an advantage. Myrrh is frequently contaminated with stick and stone, which must be allowed for when present, hence after preparing the emulsion it would be well to add, "Strain through muslin or tow, washing the strainer with a little rose water. When the desired volume has been obtained, add the ferri sulphas in clean, clear crystals; cork immediately and shake well until dissolved and the reaction is complete." The bottle is best kept inverted or on its side until each dose has to be removed.

English and Welsh News

The Editor would be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Poisonings

The following cases of fatal poisoning, among others, have been recorded since our last report:—

An inquest was held in East London, on August 23, on the body of Josephine Shirley, caretaker, who died five months after taking spirit of salt. A medical witness stated that extreme emaciation was a feature of this unusual case, the heart, for instance, weighing only four ounces. It was found that the deceased committed suicide while of unsound mind.

An inquest was held at Maidenhead, on August 24, on the body of Florence M. Bish, wife of a motor-engineer. Dr. J. Paterson, who made a post-mortem examination, said death was due to poisoning by oxalic acid, taken in concentrated form about an hour before death. In reply to the coroner, he said that oxalic acid did not come within the full restrictions of the Poisons Act, and need only be labelled with the name of the substance, the name of the seller and the words "Poisonous, not to be taken." [Oxalic acid is in Part II. of the Poisons Schedule.—EDITOR.] It was readily and usually sold in ½-oz. packets, the contents of which would cause death in from ten minutes to about an hour. The jury returned a verdict of "Suicide."

Dangerous Drugs Act, 1920

(From "The London Gazette," August 24.)

WITHDRAWAL OF AUTHORISATION: WILLIAM ROBERT WATCHAM BULL

Whereas William Robert Watcham Bull, of 12 Hyde Park Terrace, Plymouth, being a person duly registered under the Pharmacy Act, 1853, as amended by the Poisons and Pharmacy Act, 1903, has been convicted of an offence against the Dangerous Drugs Act, 1920:

And whereas the said William Robert Watcham Bull cannot, in my opinion, properly be allowed to be in possession of or supply raw opium, nor to carry on the business of manufacturing or selling or distributing any of the drugs to which Part III. of the Dangerous Drugs Act, 1920, applies:

Now, therefore, after consultation with the Council of the Pharmaceutical Society of Great Britain, and in pursuance of the powers conferred upon me by No. 6 of the Raw Opium Regulations, 1921, and by No. 10 of the Dangerous Drugs Regulations, 1921, I hereby give notice that I withdraw as from to-day's date from the said William Robert Watcham Bull the authorisations granted by the said Regulations to persons who lawfully keep open shop for the retailing of poisons in accordance with the provisions of the Pharmacy Act, 1863, as amended by the Poisons and Pharmacy Act, 1903, to be in possession of and supply raw opium and to carry on the business of manufacturing, selling or distributing the drugs to which Part III. of the Dangerous Drugs Act, 1920, applies.

W. C. Bridgman.

One of His Majesty's Principal Secretaries of State,
Home Office, Whitehall, August 24, 1923.

Partnership Dispute

In Rotherham County Court, on August 21, a partnership dispute with reference to the Wellgate Pharmacy was heard, the case having been remitted from the Chancery Division of the High Court. The plaintiff was Miss Mary Poyser and the defendant her brother, Mr. Frank Poyser. Mr. F. J. O. Coddington, counsel for plaintiff, said that the parties went into partnership in May 1919. The original capital was £202, of which the two partners each contributed £41. By agreement they started the business in the name of the brother, and his name was used over the shop and in the banking account. He married in September 1921, and had lived above the shop ever since. He originally offered his sister £50. Then he increased the offer to £100, together with the £41 she had contributed, but now he only admitted liability for the £41. The question at issue was whether there was a partnership or not. Mr. A. S. Furniss, for the defendant, pointed out that if there

was a partnership the parties had not complied with the Registration of Business Names Act. The defendant, in cross-examination, said that he had carried on the business himself until April 1923. Since then it had been transferred to a limited company, 193 shares having been issued. Defendant had one share, his wife had 191, and a qualified chemist had the other share. Defendant's wife had given him £10 for her shares. His Honour: What is the business worth that you sold for £10?—Defendant: Possibly £500, including stock and fixtures. The judge found that there had been a partnership, which was dissolved on July 17, 1921, that plaintiff was entitled to the return of her capital, to half the value of the business, together with interest at 4 per cent., and costs. He found that the value of the business was £800, but the defendant could have accounts and inquiries taken from July 1921 if he wished. Leave to appeal was granted.

Birmingham

Several of the leading city pharmacists are at present away on holiday, which usually comprises a motor tour.

The death is announced of Dr. J. S. Craig, a well-known local homœopathic physician who was for many years connected with the Easy Row hospital.

Mr. W. A. Cadbury, who is now home again, will be re-elected alderman at the next meeting of the City Council. Mr. Barrow Cadbury is making a favourable recovery after his operation for appendicitis.

At the King's Heath allotment show, on August 25, a certificate of merit was awarded to the home-made wines sent by Mrs. F. H. Alcock, wife of Mr. F. H. Alcock, F.I.C., Ph.C., Alcester Lanes End.

A report has been issued by the city analyst, Mr. J. F. Liverseege, F.I.C., Ph.C., regarding some experiments he has undertaken as the result of a prosecution in Birmingham Police Court (*C. & D.*, I., 1923, p. 504), in which it was shown that potassium carbonate was capable of absorbing lead and arsenic from glass. Samples of potassium carbonate complying with the British Pharmacopœia requirements were mixed with about equal quantities of ground glass containing lead and arsenic, and put in well-corked white glass bottles for three months. At the end of that time the soluble lead had increased in each case to about 1,400 parts of lead per million, and the samples contained from 70 to 100 parts of arsenic per million. In another test 5 grams of potassium carbonate containing 18.2 per cent. of moisture was put in a corked 4-oz. glass bottle. At the end of three months the soluble lead had increased from 2 to 20 parts per million. In a pharmacy it is probable that the variations in temperature would be greater than in a laboratory, and the condensation of moisture on the upper part of the bottle might be sufficient, when part of the contents of the bottle was shaken out for sale, to make a strongly alkaline solution, which would have local solvent action on the glass.

Liverpool

A cold snap has led to the withdrawal of iced drinks.

Depredations by very young boys on lock-up shops in the Waterloo and Seaforth district have recommenced.

Mr. J. L. Hirst (secretary of the Liverpool Chemists' Association) has left for the Isle of Man for a short vacation.

"On how many nights last year did you sleep from home?" is one of the typewritten queries addressed by the income-tax authorities to a local chemist who claimed a rebate for travelling expenses.

A railway delivery to a local pharmacist of a case of eau de Cologne, of which two out of three 30s. bottles had been abstracted, only the corrugated wrappings remaining, has led on his part to a reiterated demand that such packages should be taped and sealed.

The Liverpool Pharmacists' Club has 100 members, of whom forty-five belong to the tennis section. As a wind-up to the tennis season, a dance will be held on September 26. Tickets are obtainable from the captain,

Mr. Phillips (Budden & Co., Lower Breck Road), and the secretary, Mr. W. J. Tristram, Whitechapel.

The West Derby Board of Guardians has appointed Mr. G. W. Phillips, M.B., Ch.B., as the visiting medical officer of the Fazakerley Cottage Homes for Boys and Girls. There were originally ten applicants, and they had been reduced by a sub-committee to four, who appeared before the Board. Dr. Phillips received 47 votes against 21 divided among the other three candidates. Stress was laid on the value of his experience for more than twenty years as a pharmacist in the district. He passed the Pharmaceutical Society's Qualifying examination in 1903, and graduated in medicine at Liverpool University in 1921.

The creditors of Mr. John R. Jones, contractor for hospital supplies, trading as J. R. Jones & Co., 15 Lord Street, Liverpool, were called together recently, when it was reported that the liabilities totalled £2,300. The assets were set down at £275. It was reported that the debtor commenced business in April 1922. He arranged to supply hospitals at cost price, and was to pay cash and take his discount as his margin of profit. He had, however, been unable to pay cash for the goods he obtained, and consequently he was not able to get the discount. A complete set of books had not been kept. There was no stock-in-trade, as one firm had commenced proceedings and had levied execution. No definite resolution was passed. Among the creditors are: T. J. Smith, £926; J. G. Ingram & Sons, Ltd., £30; Leslies, Ltd., £10.

Manchester

Mr. C. H. Atlay, 54 Deansgate, has been appointed representative of the Graesser-Monsanto Chemical Works, Ltd., Ruabon and London, for Manchester and district.

"Chemist and Druggist" has written from Patricroft a neatly worded letter to the "Manchester Dispatch" combating a statement to the effect that chemists' profits amount in some cases to between 300 and 600 per cent.

Mr. S. N. Brown, F.C.S., consulting chemist of the Broughton Analytical Laboratories, 7 Chapel Walks, Cross Street, has formed a partnership with Mr. James Booth, A.M.I.Chem.E., F.C.S., who will act as consulting chemical engineer to the laboratories. Inquiries regarding plant should be forwarded to that address.

At Manchester County Police Court, recently, three men named William R. Batty, Raymond F. Savage, and John Carney were charged with the theft of some Treasury notes from the residence of Mr. A. T. Cussons, manufacturing chemist, at Rainsough, Prestwich. It was stated that Mr. Cussons left his coat with the notes in it hanging in the greenhouse, and subsequently saw the prisoners running away from the premises.

Sheffield

An outbreak of fire at the Attercliffe Road branch of Boots, Ltd., recently, was caused by the dropping of a lighted cigarette into the cellar.

Insulin treatment for insured persons is now to be undertaken at their homes instead of the hospital. Mr. Preston, Barker's Pool, has arranged to keep a stock to meet immediate requirements.

The secretary of the Sheffield Pharmaceutical Committee has been informed by the Commissioners of Customs and Excise that they offer no objection to the use of mineralised methylated spirits in the three preparations of the local Insurance formulary.

Miscellaneous

SAFEGUARDING BRITISH INDUSTRIES.—In view of the opening of the Imperial Economic Conference in London on October 1, the National Union of Manufacturers is issuing a circular letter and *questionnaire* to manufacturers on the subject of the protection of home industries, with the object of presenting the British manufacturers' case to the Conference and the Empire.

ASSOCIATION OF BRITISH EXHIBITORS.—A general meeting of the Association of British Exhibitors, the formation of which was announced in the *C. & D.*, July 21,

p. 75, will be held at the Cannon Street Hotel, London, E.C., on September 6, at 3.15 p.m. The report of the provisional committee and the articles of the Association will be submitted, and anyone eligible for membership is invited to attend.

IN THE COURTS.—At Nelson, Lancs., on August 28, Hilda Holmes, domestic servant, was remanded on a charge of sending whisky containing carbolic acid to William Foy, greengrocer. It was stated that an analysis revealed the presence of sufficient of the acid to set up irritant poisoning.—At Barnet Petty Sessions, on August 29, Percy Clarke, company director and farmer, and William Clarke, his manager, were fined respectively £10 (with costs) and £5 for omitting to treat sheep which were suffering from fly. One animal died; the defence was that death was due to the absorption of poison contained in the dressing. Notice of appeal was given.

Scottish News

Brevities

A photograph and a brief account of the career of Mr. J. M. Stevenson, chemist and druggist, Ardrishaig, in connection with the completion of his sixty years in business, appeared in the Glasgow "Bulletin," August 25.

An enjoyable evening was spent in the old Western School, Broughty Ferry, recently, when a dance was held by the employees and friends of Forbest, Ltd., over fifty couples taking part. A recitation was given by Miss Fraser and songs by Messrs. F. O'Brien, Murray and Edwards. Mr. G. Forbes Johnston, managing director, presided.

Glasgow

Mr. John Fyfe, chemist and druggist, 491 Victoria Road, Crosshill, and 558 Cathcart Road, Govanhill, has acquired the business of the late Mr. J. D. Sutherland, chemist and druggist, Maverton Buildings, Giffnock, as from September 1. The alterations to the Victoria Road premises being completed, Mr. Fyfe will conduct business from that address.

The rambling section of the Glasgow Pharmacy Club will hold an outing to Craigmarloch on September 4. A motor-boat leaves Port Dundas at 2.15 p.m. Tickets and other particulars are obtainable from Mr. H. P. Arthur, 361 Victoria Road; Mr. D. Sime, 317 Maryhill Road; or Mr. P. M. Duff, 143 Dumbarton Road. The first practice match of the football section will take place on September 11 at 3 p.m. on the ground of Armstrong & Main, Possilpark. The committee of the section is anxious that pharmacy should be well represented this season, and invites all who are interested to communicate with Mr. F. Baillie, 27 Baird Street, Govan.

Irish News

Brevities

Mr. W. A. Murphy, Ph.C., has taken over the Medical Hall, Limavady.

The Central Pharmacy, Broad Street, Magherafelt, has been purchased by Mr. John A. Mallon, who has opened an up-to-date Medical Hall.

Mr. F. T. Smith, R.D., has been appointed chairman of the Antrim Local Employment Committee, under the auspices of the Northern Irish Ministry of Labour.

At an inquest held recently concerning the death of Mrs. Hennessy, Cork, a verdict was returned of death from misadventure as a result of taking corrosive acid tablets in mistake for aperient medicine.

Dr. Denis McCarthy, Ph.C., Youghal, co. Cork, has been appointed surgeon in charge on R.M.S. "Sachem," Furness, Withy & Co., Ltd., Liverpool. Dr. McCarthy, who has already made several voyages to U.S.A., served his apprenticeship with Mr. A. N. Cole, The Rexall Pharmacy, Youghal. He is the elder son of Captain John and Mrs. McCarthy, Youghal.

American Notes

By "The Man from London"

THE SIMPLE LIFE AS ADVERTISEMENT.—A wonderfully realistic piece of window-dressing in the shape of an actual boiling mud-pool is the advertising appeal by which a Los Angeles firm is advertising a "complexion clay." The walls inside the store are hung with pictures and *papier mâché* models of volcanic and desert scenes, and upon entering one is confronted with a large and life-like volcanic cone on the wall facing the door, which by means of electric wiring actually seems to spout real flames at stated intervals. Near by are concrete models of the original rocky approaches to the mud-springs.

MAGNESIUM SULPHATE AS A SEDATIVE.—Some years ago magnesium sulphate was used frequently in cases of tetanus owing to its paralysing effect when injected subcutaneously or intravenously. A 50 per cent. solution of absolutely pure magnesium sulphate, made with distilled water and sterilised in the autoclave, has been used in the usual dose of 2 c.c. of the solution as a sedative in cases of excitable patients who could not sleep at night, and in 82 per cent. of the cases the sedative action was prompt, the patient becoming quiet after a short time and sleeping from five to seven hours. The salt also was found, according to Weston and Howard, to be an excellent substitute for morphine and hyoscine in many cases. The action of magnesium sulphate on the nerve cells is counteracted by calcium chloride when injected intravenously.

FACE AND TOILET POWDERS.—Face powders should be as fine and display as great a density as possible, so that the separate particles will lie close together and not be too conspicuous. Toilet powders generally should remain lightly upon the skin, and not blow off. Corn starch, rice starch, potato starch, also pistachio-nut flour are well adapted for these powders. Magnesium carbonate, bismuth white, talcum and the finest sifted chalk also have their uses. Zinc oxide is important, as it has great covering power and adhesive properties, and makes a useful addition to the lighter starches and magnesium carbonate. Zinc stearate is excellent as an addition to these powders, a good combination being: Stearate of zinc, 25; magnesium carbonate, 40; rice flour or corn flour, 35. This powder covers beautifully and adheres well to the skin.—"Amer. Perf. and Ess. Oil Recorder."

DRUG FOR AFRICAN SLEEPING SICKNESS.—The "New York Times" stated recently that Dr. Simon Flexner, head of the Rockefeller Institute for Medical Research, has announced that the drug tryparsamide was synthesised following experiments at the Institute in the autumn of 1915. It has been found to give the most satisfactory results in African sleeping sickness, and it is believed that it will be found valuable in the treatment of other diseases of the central nervous system. The new drug is one of the arsenic compounds, and as it was the result of altering the compound sixty-three times it is known as A63. The Institute sent Dr. Louise Pearce to Africa, who experimented with much success upon the natives. The drug has been used here in New York in treating paresis, and the results have been most favourable, twenty-one of forty-five advanced cases having been improved. Tryparsamide is the sodium salt of *n*-phenylglycinamide-para-arsenic acid.

MEXICO HAS 10,000 DRUG STORES.—There are possibly 10,000 drug stores in Mexico whose imports of chemicals, drugs and dyes in 1921 approximated \$8,000,000 in value. The United States supplies about 60 per cent. of the import trade; the chief competitors, in order of their importance, are England, France, Switzerland and Germany, though Japan and China also participate. Germany is fast picking up the trade lost during the war in dyes and drugs. Mexican medical schools follow French practice and use many French text-books, with the result that native doctors develop a familiarity with French products, and prescribe them. While Mexican law requires drug stores to employ licensed pharmacists, many

are merely in charge of registered men (same conditions prevail in New York), who are paid for the use of their names. This condition of affairs pharmaceutical has, according to "Commerce Reports," created a lack of confidence in prescription medicines and has helped the sale of patented products.

DRUGGISTS BEGGED NOT TO SELL LIQUOR.—Dr. H. H. Rusby, Dean, College of Pharmacy of Columbia University, N.Y., in a long letter to the "New York Times," appeals to the pharmacists here not to supply the public with liquor, and also begs the public not to buy it of those men who are in the drug business only for what they can make out of selling whisky. Dr. Rusby says: "A large number of regular physicians in Greater New York habitually sell fraudulent prescriptions for liquor to pharmacists, on a definite business basis, by which the profits are shared. These fake prescriptions are sold by the hundred, signed in blank, to be used by the pharmacist (acting as bar tender) without restraint or supervision. The last place to which anyone should go for illicit liquor is to the pharmacist. Moreover, he should not entrust the filling of his prescriptions to one whose conscience is so blunt as to permit him to betray his trust." This kind of business imposes a heavy handicap upon those who are loyal to their legal and moral obligations.

A TEA-SUBSTITUTE.—The Bureau of Chemistry, in an announcement, explains the possibilities of the leaves of the cassina shrub, which grows wild in abundance along the South Atlantic and Gulf States. The Bureau has produced at a reasonable cost a new invigorating drink from the cassina leaves which is named "cassina," and states it may in time be in common use as a beverage in the same way as tea. The active principle of this plant is caffeine, of which analyses showed it had a content of 1 per cent., some samples running as high as 1.65 per cent., also there is much less tannin than in tea, which would consequently make its use less harmful. It is said to make a pleasant tasting brew with a delicate flavour. This new ambrosial drink is the direct outcome of research work by the Bureau of Chemistry, for which Congress appropriated last year \$5,000. The technical name of cassina is said by some authorities to be *Ilex Cassene*, and by others *Ilex Vomitoria*. It has the common names of cassene, yaupon, and Christmas berry. In North America, according to the Bureau, "the leaves of this plant are cured in a crude way by the Indians, who make and use a stimulating brew from them in the same way as we do tea and coffee."

MUSTARD STANDARDS.—The following revised and amended definitions and standards were adopted by the Joint Committee on Definitions and Standards, composed of representatives of the United States Department of Agriculture, the Association of American Dairy, Food and Drug Officials, and the Association of Official Agricultural Chemists, at its March meeting:—

Ground mustard seed, mustard meal, is the unbolts, ground mustard seed and conforms to the standards for mustard seed.

Mustard cake is ground mustard seed, mustard meal, from which a portion of the fixed oil has been removed.

Mustard flour, ground mustard, "mustard" is the powder made from mustard seed with the hulls largely removed and with or without the removal of a portion of the fixed oil. It contains not more than one and five-tenths per cent. (1.5 per cent.) of starch, nor more than six per cent. (6 per cent.) of total ash.

Prepared mustard is a paste composed of a mixture of ground mustard seed and/or mustard flour and/or mustard cake, with salt, a vinegar, and with or without sugar (sucrose), spices, or other condiments. In the fat, salt, and sugar-free solids it contains not more than twenty-four per cent. (24 per cent.) of carbohydrates, not more than twelve per cent. (12 per cent.) of crude fibre, not less than five and six-tenths per cent. (5.6 per cent.) of nitrogen, the carbohydrates being calculated as starch.

The foregoing definitions and standards are adopted as a guide for the officials in enforcing the Food and Drugs Act.

Colonial and Foreign News

JAPAN'S CROP OF PYRETHRUM FLOWERS.—The 1923 crop of pyrethrum flowers in Japan, it is stated, will amount to 2,260 tons of 2,000 pounds each. If weather conditions are favourable there is a possibility of this calculation being exceeded by 20 per cent., which will allow of about 1,560 tons being exported.

GOLD COAST PERFUMED SPIRIT DUTY.—A Customs notice to importers appears in the Gold Coast "Official Gazette" of July 14, stating that, under the rating for duty at 15s. per imperial gallon, the Customs Department is prepared to admit all perfumed spirits imported, as long as the Department is satisfied that the primary object of such preparations is to perfume, and that they are to be ordinarily used for that purpose.

"LIQUID MEDICINES" IN CANADA.—It is stated in Appraisers' Bulletin No. 2,795 (July 10, 1923), issued by the Department of Customs and Excise, Ottawa, that the term "liquid medicines" in the list of articles which are not subject to the 10 per cent. discount on the amount of duty payable under the British Preferential Tariff, as provided for in Section 5 of the recent amendment of the Customs Tariff, is considered by the Department to apply only to alcoholic liquid medicines. For Customs purposes such medicines are considered alcoholic only when containing more than 2½ per cent. of proof spirit.

IRAQ CUSTOMS TARIFF.—The new Iraq customs tariff, introduced on April 1, 1923, includes the following charges:—

Article	Rate of Duty
Alcoholic preparations (with the exception of liqueurs, etc.), per Imperial proof gallon ...	24 rupees
Denaturated alcohol and alcoholic preparations rendered effectively unfit for human consumption ...	15 per cent. <i>ad valorem</i> and ½ annas per oke.
Opium ...	20 per cent. <i>ad valorem</i>
Non-alcoholic perfumes and toilet articles ...	20 per cent. <i>ad valorem</i>
Perfumed alcoholic preparations, per Imperial gallon ...	36 rupees

FUSEL OIL PRODUCTION IN CZECHOSLOVAKIA.—The annual output of fusel oil in Czechoslovakia approximates 150 metric tons, 95 per cent. of which is exported. Germany is the greatest purchaser of Czechoslovak fusel oil, followed by the United States, Holland, Austria, Hungary and Switzerland. After it was discovered that fusel oil could be used in certain chemical processes, and the demand increased, all spirit refineries in Austria-Hungary joined together and delivered their output of fusel oil to the largest refineries in Bohemia. The Czech refiner was thus able to control the entire business. This old system is still in force, and all the succession States of Austria-Hungary are now concentrating their output through this firm in Czechoslovakia.

SWEDISH PHARMACOPŒIAL NOMENCLATURE.—The Latin designations for chemicals and drugs in use in the three Scandinavian kingdoms and in Finland differ materially in form from those current in other countries—e.g., chloras kalicus, chloratum chinicum, hydratocarbonas magnesicus, jodetum kalicum, nitrus strychnicus, sulfas natrius. A new edition of the Swedish pharmacopœia is now in course of preparation, and in view of a report to the effect that the commission proposed introducing in the new edition a number of important alterations in the official nomenclature, the matter was taken up by the Swedish Association of Pharmacists. In a communication to the Royal Medical Board it is suggested that the present nomenclature should be retained until the time comes for replacing it by an international pharmacopœial nomenclature, and also that the Board should make an estimate of the expense which the proposed alterations would involve. In its reply the pharmacopœial commission expresses the opinion that a discussion on the question of the proposed new nomenclature should be postponed until the draft of the new edition is available for criticism.

Insurance Act Dispensing

Record of matters concerning Chemists' interests in the National Health Insurance Acts

Local Reports

ENGLAND AND WALES

South-Eastern Pricing Bureau.—According to a report recently issued by the Joint Committee of the South-Eastern Division, during the past year 3,554,662 prescriptions were dealt with, in addition to 267,639 Ministry of Pensions prescriptions, to the total value of £149,699 17s. 4d. The total number of National Health Insurance prescriptions and the value thereof for each of the last seven years was as follows:—

Year	Prescriptions	Value £ s. d.
1916	2,510,345	64,347 17 11
1917	2,385,822	62,840 3 4
1918	2,730,997	85,730 17 6
1919	2,659,768	92,190 3 5
1920	3,056,385	132,375 17 0
1921	3,289,621	136,616 2 2
1922	3,554,662	135,254 19 8

The average total cost per prescription (excluding scripts specially marked as chargeable to the Sanatorium Benefit Fund) varied from 6.10d. in 1916 to 9.1d. in 1922, and the average total cost per insured person has risen from 16.30d. in 1916 to 28.3d. in 1922. The number of prescriptions disallowed during the year was 627; of this number 296 prescriptions were for brushes, the others were for articles in the nature of foods, such as charcoal biscuits, bovril, malted milk, meat enules, ovaltine, Valentine's meat juice, and vibrana. Other disallowances were for appliances not included in the second schedule to the regulations and comprised crutches, douche tins, glass funnels, metal stupes, pneumonia jackets, paper handkerchiefs, sputum bottles, and thermogene wool. During the first six months of 1922 the number of "urgent" prescriptions was 1,753 in Middlesex, 804 in Kent, 970 in Surrey, 105 in Portsmouth, 236 in East Sussex, 158 in West Sussex, 116 in Brighton, 42 in Hastings, 360 in Eastbourne, 253 in the Isle of Wight, and 58 in Croydon, the total value of the "urgent" fees amounting to £105 19s. 9d. The following statistics are also given:—

—	Total Prescriptions	Total cost £ s. d.	Total panel patients	Av. ingred. price	Av. disp. fee
Middlesex ..	1,200,682	45,023 13 10	390,090	4.1	4.9
Kent ..	845,671	33,686 1 2	252,021	4.6	5.0
Surrey ..	494,588	18,283 4 1	186,995	3.8	5.1
Portsmouth ..	194,971	6,812 17 8	69,150	3.3	5.1
East Sussex ..	152,575	6,055 0 8	46,148	4.6	4.9
West Sussex ..	108,899	4,478 4 6	36,041	4.9	5.0
Brighton ..	165,876	6,388 11 7	49,101	4.4	4.8
Hastings ..	60,304	2,358 5 4	17,135	4.5	4.9
Eastbourne..	45,769	1,960 10 10	17,681	5.2	5.1
Isle of Wight ..	74,653	3,016 4 5	22,047	4.8	4.9
Croydon ..	194,071	6,643 11 0	55,616	3.1	5.1
Canterbury..	16,603	548 14 7	6,422	2.9	5.0

SCOTLAND

Drug Accounts Committee.—A statement has been issued from the Central Checking Bureau showing, in respect of the first half of the years 1915 to 1923, the number of forms allowed, the value, and the average price, in respect of the burghs and the counties (the whole of Scotland).

Year	Burghs			Counties		
	No. of forms	Value	Av. price per form	No. of forms	Value	Av. price per form
		£ s. d.			£ s. d.	
1915	825,366	32,473 7 1	9.44	428,201	17,735 10 2½	9.94
1916	678,225	28,805 9 9½	10.19	352,061	16,405 8 0	10.87
1917	652,804	25,459 13 5½	9.36	341,577	14,093 15 4	9.90
1918	608,282	27,794 7 8½	10.96	324,659	16,154 1 1	11.94
1919	680,873	33,690 18 5½	11.87	390,860	20,932 1 11	12.80
1920	720,322	49,074 6 0	16.35	406,605	29,285 11 11½	17.28
1921	684,955	39,779 10 3	13.93	390,589	23,737 8 11½	14.58
1922	795,464	42,802 9 3	12.91	460,837	25,651 6 3	13.35
1923	752,797	41,354 13 5½	13.18	436,927	24,611 19 1½	13.51

Proprietary Medicines in South Africa

DURING the sitting of the Select Committee on the South African Medical, Dental and Pharmacy Bill, to which reference was given in last week's issue, evidence was given by Messrs. H. R. Arderne, W. H. Low, and A. G. Hill, on behalf of the Association of Manufacturers of British Proprietaries. It appeared from the evidence that objection was taken by the Association to the sub-section of the Bill, which provides for the disclosure of the formula in proprietary medicines, and the evidence was as follows:—

DISCLOSURE OF FORMULAE

By the Chairman (Mr. Arderne).—Our contention is that that subsection is quite sufficient in itself without the two lines "if such formula has been submitted to and approved for the purposes of this section by the Minister." Members of the Association are quite prepared to disclose any habit-forming drugs which they use, but they do not want the formula, which may be very valuable, to be disclosed. There is no provision in the Act for the formula to be kept secret, and there is no penalty provided for anyone disclosing it. There is a chance of it being disclosed, and that is the danger. We are advised that there was similar legislation in Canada and Australia, and in both cases, after careful consideration, they protected the holders of these formulae. I have a circular here which was received from New South Wales, in which provision was made in the New South Wales Act to the following effect: "But no regulation under this Act shall provide that the owners or proprietors of proprietary medicines shall deposit, disclose or publish the formulae or ingredients of any such proprietary medicines." I propose that the words in the section of the Bill which we have been reading: "if such formula has been submitted to and approved for the purposes of this section by the Minister" should be deleted, and that any provision for the filing of formulae should be excluded. (*Mr. Low.*) Of course, the proportion of habit-forming drugs would be on the register provided for in section fifty-five. We object entirely to the disclosure of the formula, because that is a secret which is at present the property of the respective manufacturers, the secret of these formulae is the very foundation of our business. Once you strike that away, once you remove that, you remove the only asset of the business. It has been laid down in many cases in England that if the process becomes known, then there is nothing to prevent any member of the public from reproducing it. That is to say, for instance, if Beecham's formula for Beecham's Pills were disclosed, then Jones can put on the market Beecham's Pills manufactured by Jones. And there is, of course, the very well-known case of Liebig's, where he invented process in connection with the extract of meat, and that became widely known as Liebig's extract. The secret became known and there were two cases decided in England that other people could manufacture Liebig's extract and as a consequence the company had to reconstruct and put on the market a new preparation known as Lemco. And we are afraid that if the formula has to be disclosed then our whole business will go, and not only our business here, but all over the world. If the formula is known here it will be known elsewhere. We regard the matter so seriously that if we are compelled to disclose our formula, then we will rather go out of the South African market altogether. The South African market is a very small proportion of our market, and to risk losing the whole of our market by our formula becoming public—well then, there is only one thing for the business men to do. This attempt to obtain a disclosure of a formula is not unprecedented. It has happened in almost every English-speaking legislature. Bills have been brought in to compel disclosure. During the war the export of medicines could only take place under licence in England where the Export Department of the Board of Trade brought in a regulation to compel the disclosure of a formula, but after that was gone into, and after consideration of the position, they withdrew that regulation, and only insisted upon the disclosure of any harmful drugs and what proportion of such drug was used. In 1920 the Health Ministry in England brought in a Bill which originally contained a proposal for the disclosure of the formula, and that was examined by a Select Committee, and the Select Committee struck out the provision for the disclosure; the disclosure in that Bill originally was protected by clauses for secrecy, and it laid down that it had to be put in a separate register, and provision was made that that book was to be kept secret, and could not even be produced in court

without the consent of the registered owner of the medicine. The Select Committee struck all that out after hearing the evidence, and struck out the requirement to disclose the ingredients and the composition of the medicine, and substituted for the disclosure a declaration to the effect that the medicine did not contain any poison or dangerous drug or, if it did, specifying the drug and the proportion in which it was used in the medicine.

BRITISH COLONIES REJECT DISCLOSURE

If I may, I shall be pleased to hand in a copy of this Bill as it originally was printed, with the amendments as printed by the Select Committee. This Bill has not yet become law. I might also refer to the Profiteering Act of 1919, which originally contained a provision compelling the disclosure of a formula, but that also was moved out in Committee, and section seven which provides that nothing in this Act shall require particulars of any secret process or the ingredients to be disclosed. Bills were also introduced in the United States recently, and also in Canada, Australia and New Zealand. These all required disclosure of the formulae, but in their passage through the legislature that provision was in every case struck out. In Western Australia in 1913 regulations were proposed to the legislature requiring disclosure of formula, but after a full discussion they were turned down by a vote of the Senate. In Queensland in 1917 a similar attempt was made, but it was defeated in the House of Representatives by a very large majority. An attempt in New York State in 1916 to pass an Ordinance compelling disclosure was held to be *ultra vires* by the High Court of the United States, and in the Straits Settlement in 1918 a similar attempt was turned down by the Legislative Assembly. Then in Canada the same thing happened in 1919, and I put in the Act that was passed in Canada which provided merely for the drug disclosed and the quantity of the drug.

Now that protection to the public we are perfectly prepared to make, and we would urge that the Committee should consider that as sufficient and allow the Bill to go through on the lines of all the other Acts which have been passed in the English-speaking world. This only applies to habit-forming drugs. We would not be satisfied if provision were put in requiring secrecy to be observed in regard to formulae, because no matter how well the secret is kept, it will be a danger to us. Just a single moment of carelessness on the part of an official might give our secrets away, it might be done innocently, but it is a danger we are not prepared to face.

By the Chairman. These preparations are always made exactly to type, so that you can depend upon the quantities. That is one point which is made in a pamphlet published by the Association. I can put that pamphlet in. They say that their manufacturers do provide for a standard. I may say in regard to the question of care not always being observed that this Association is an Association which contains the largest manufacturers in the world, and they are practically exclusive. I have a list here of the members, and one need only look at it to see that these are world-wide names. (*Mr. Hill.*) I represent the Association in an advisory capacity on this market. Furthermore my firm act as the sole distributing agents for some of the largest members of the Association, including the Chairman and the Vice-chairman. The Association have been up against similar proposed legislation all over the world, and as a matter of fact McKenna & Co., who are the solicitors of the Association, when this Bill was introduced, wished to come out to South Africa to make representation before the Committee, but I went so far as to tell them that we had able legal minds here and reasonable legislators, so they have not gone to the trouble of sending Mr. McKenna out. I think Mr. Arderne and Mr. Low have put our case fully before you, and as reasonable men I would ask you to put yourselves in the position of one of the proprietors of patent medicines, say, Beecham's Pills, for instance. We know them well. I think that their turnover, or any other turnover of proprietary medicines in South Africa, is not five per cent. of their total turnover. They do not profess to be independent of the South African market, they want all the business they can get from this market. They think that to distribute their goods in this market is a good thing for the country, and profitable too for their pockets. But if you compel them to disclose their formula in South Africa for five per cent. or for under five per cent. of their turnover, that formula can immediately be cabled all over the world, and Mr. Smith or Mr. Jones all over the world can make Beecham's Pills made by Smith or Jones. I ask you as reasonable men to put yourselves in the position of such a manufacturer. Are you going to jeopardise the further 95 per cent. of your trade for 5 per cent.?

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

WILLIAM PINCHIN & Co., LTD. (P.C.).—Capital £6,000. Objects: To acquire the business of colour, paint and varnish manufacturers and white lead merchants, hitherto carried on at Hague Street and 8 Church Street, E. R.O.: 2 Hague Street, London, E.2.

T. DAVID, LTD. (P.C.).—Capital £500. Objects: To take over the drug store of T. David at 192 Corporation Road, Newport, Mon., and to carry on the business of chemists, druggists, wine and spirit merchants, photographic supplies dealers, etc. R.O.: 192 Corporation Road, Newport, Mon.

BURLINGTON SYNDICATE, LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturing research chemists, importers and manufacturers of and dealers in chemical, industrial and other preparations, etc. The provisional directors are: C. Mellor and W. J. Austin. Solicitor: C. Crowther, 23 Abingdon Street, Westminster, London, S.W.

ANDERSON CASH CHEMIST, LTD. (P.C.).—Capital £1,200. Objects: To take over the business of chemists and druggists and dealers in photographic supplies carried on at 260 Upper Tooting Road, S.W., as "Nettles Pharmacy," and to adopt an agreement with S. C. Anthoney, H. J. Yerrill and G. Anderson, who are the permanent directors. R.O.: 260 Upper Tooting Road, Streatham, S.W.17.

SUBLIMA, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of manufacturers of cleansing materials carried on by G. Ries at 146A Queen Victoria Street, E.C.; to acquire the registered trade-mark, "Sublima"; and to carry on the business of manufacturers and salesmen of cleansing and polishing materials, etc. R.O.: Stevenage House, 40-44 Holborn Viaduct, London, E.C.1.

SCHWEPES (COLONIAL AND FOREIGN)* LTD.—Capital £200,000. Objects: To adopt an agreement with Schwepes, Ltd., and to carry on the business of manufacturers, importers and exporters of and dealers in natural, artificial, aerated, mineral or other waters, etc. The first directors are: Sir Ivor Phillips, C. W. Milne, J. McLaren, W. J. Barnett, and W. B. C. D. Kemp. R.O.: 1 Connaught Place, W.2.

B. H. GEDDES, LTD. (P.C.).—Capital £500. Objects: To carry on the business of general merchants, exporters, importers, general storekeepers, shippers, bankers, banking and shipping insurance and property agents, ship-owners, carriers, etc. The permanent directors are: B. H. Geddes, merchant; S. H. Travis, manufacturing chemist; and W. W. Storer, manufacturing chemist. R.O.: 33-35 King's Road, St. Pancras, N.W.1.

NILDE (PARIS) AGENCY, LTD. (P.C.).—Capital £500. Objects: To carry on the business of buyers, sellers, importers, exporters and manufacturers of and wholesale and retail dealers in all toilet requisites and other articles and commodities of a like nature sold or dealt in under the trade-mark or name "Nildé," glassware, fancy goods, boxes, cases, and articles of card, wood, metal or otherwise, collectors of flowers and perfume producing vegetation, etc. R.O.: 4 Copthall Chambers, E.C.2.

SOLVENT EXTRACTION REFRIGERATION CO., LTD. (P.C.).—Capital £5,000. Objects: To acquire from G. Young, R. C. Denington, J. Kemp and S. Barker the benefit of certain existing patents in relation to the Solvent Extraction Refrigeration Process; also to acquire any interests in any patents relating to the extraction of oils, fats, essences, perfumes and other like products, etc. The first directors are: Dr. G. Young, 46 Church Crescent, N.3; J. D. Paton, "Glenmuir," Leicester Road, Hale; R. C. Denington, 69 Dover Road, Wanstead Park, E.12; F. H. Terleski, "Oakwood," Hilton Lane, Prestwich; T. D. Fish, Hendon, Mavis Road, Blackburn; E. G. Wood, 226 Tonge Moor Road, Bolton; and C. W. Pullen, "Glen-

ferry," Regent Road, Altrincham. R.O.: 25 Market Street, Manchester.

K.D.P., LTD. (P.C.).—Capital £43,000. Objects: To adopt agreements (1) between the Metallbank and Metallurgische Gesellschaft Aktiengesellschaft of the one part and W. P. O. McQueen of the other part; (2) with W. S. Stutchbury and Metal Traders, Ltd.; and (3) with the said Metallbank and Metallurgische Gesellschaft Aktiengesellschaft, to acquire and turn to account any inventions, secret or other processes, patents, trade-marks or other rights. To treat, manipulate, cure, prepare, atomise, dry, moisten, reduce, convert, re-convert, submit to any process, manufacture, experiment with, develop and deal with (whether on account of the company or others) any products, articles, substances, solutions, liquids, fluids suspensions or other body or bodies or organic or inorganic substances, etc.; power is taken to grow and produce coffee, tea, coconuts, sugar, tobacco, cocoa, pepper, cardamoms, camphor, aloes, vanilla, cinchona, indiarubber, gutta percha, balata and other gums, etc. R.O.: 7 Gracechurch Street, London, E.C.

THE BRITISH CASEIN Co. (1911), LTD.—The first meeting of creditors of this company will be held at 33 Carey Street London, W.C.2, on September 5, at 11.30 a.m.

GERALD BROMAGE & Co., LTD.—We learn that the item of £100 mentioned in our report on August 25 (p. 295) of this company's meeting as due to Pierre Dhumez & Co. is subject to a contra account, and is a provisional estimate.

B. LAPORTE, LTD.—The net profit for the year ended June 30, 1923, after making the usual transfer to reserve and charging depreciation, directors' fees, etc., was £20,713, plus £3,975 brought in. It is proposed to write off goodwill £441, to transfer to bad debts reserve £2,000, pay dividend on ordinary shares of 11 per cent., less tax, carrying forward (subject to directors' commission) £10,038.

BOOTS PURE DRUG Co., LTD.—Mr. Louis K. Liggett, chairman of the United Drug Co., on returning to the United States from this country, has been speaking of the prospects of Boots Pure Drug Co., Ltd., of which concern Liggett's International (Boston, U.S.A.) now holds the majority of the ordinary shares. The business in England this year, according to Mr. Liggett, is about 10 per cent. ahead of last year. Manufacturing has commenced in England, and in this country, as in America, the business is expanding at the rate of one store a week. According to the prospectus of last May, when 250,000 ordinary shares of £1 each were offered to the British public at the price of £4 per share, the shops in this country numbered then 664. The first business was opened in 1883, and there were 33 businesses in 1893. It is reported that there are now 750 shops in Britain. Mr. Liggett indicates that in the United States there are now 270 stores and 35 in Canada. While an interim dividend of 9 per cent., less tax, was declared last month on the new ordinary shares of Boots Pure Drug Co. for the quarter ended June 30 last, the Common dividend was resumed recently in the United States at a 6 per cent. rate, with ample put aside for surplus. Mr. Liggett declares that his company in America does not intend to be caught again as it was in 1921. Referring to the current year, the chairman states that the United Drug concern as a whole should be able to do \$125,000,000 worth of business. Of that trade it is hoped that the sales in Britain will total \$42,000,000, or the equivalent of £8,400,000, while as much as \$70,000,000 is expected from the United States and six or seven million from the Canadian business. "Our company," concluded Mr. Liggett, "is all out of debt and we are growing on our profits. We only owe on our bonds and are retiring them as rapidly as possible. We have \$2,000,000 in bonds which are due in 1926, and we have already bought of our total bonded indebtedness, which is \$12,250,000, \$1,250,000 worth of bonds. The balance of our issue is due in 1941 and it is convertible into Common stock at 110."

Reviews of Books

Perfumes and Cosmetics, with special reference to Synthetics. By W. A. Poucher, Ph.C. 8½ in. by 5½ in. Pp. 462. 21s. London: Chapman & Hall, Ltd., 11 Henrietta Street, W.C.2.

This book will appeal to the practical perfumer who really wants to know something about his work and the substances he uses in it. The chemist will find but little chemistry in it, but probably the practical perfumer will consider that a virtue. The chemist, for example, will not like such expressions as "straight-chain" and "branched-chain" applied to chemical substances because their diagrammatic formulas, necessarily set out in one plane, may follow such indicated directions. Nor will he approve such lax expressions as that relating to the mixing of alcohol and water: "These figures, although not producing 100 on paper, produce 100 by means of proof spirit, owing to condensation and contraction of bulk on mixing." But, apart from such little matters, the book is distinctly good, and contains a great deal of up-to-date, accurate matter within a reasonable compass. About 150 pages are devoted to a dictionary of the more important raw materials, etc., employed by the perfumer. These substances are described shortly, but accurately. The remainder of the book is devoted to the description of perfumes, their characters, preparation, and uses, and to the various finished products comprised under the names perfumes and cosmetics. These include every type of such bodies, and the formulas given appear to be good. In some, one would fancy, there is a somewhat too liberal use of the higher fatty alcohols and aldehydes, which require using in traces only, and a perhaps rather too frequent occurrence of proprietary articles. But the book is a good one. The matter is sound and practical, the get-up and illustrations are excellent, and it is quite free from gross errors, a thing which can scarcely be said of nearly every book on perfumery which has appeared of late years. We cordially recommend it to all interested in practical perfumery.

Within the Atom. By John Mills. 7½ in. by 5 in. Pp. 215, illustrated. 6s. net. George Routledge & Sons, Ltd., 68-74 Carter Lane, London, E.C.4.

The general public is showing an intelligent interest in the fundamentals of science, which increases in proportion to the simplicity of the terms in which it is explained. The great generalisations of science are in themselves simple; it is in critical discussion that they become complex and confusing. The author possesses the power granted to few teachers of expressing scientific truths accurately in everyday language. All science is founded upon mere conceptions, but it is seldom that these ideas are presented, as in this instance, without confusing abstractions. The author takes the electron theory for granted and builds up a popular treatise on the science of energetics, which includes all science, being alike the basis of mechanics, physics and chemistry. These are merging into one grand whole as knowledge progresses. Great truths are given in a few words, viz.: There are "two entities which are conserved in amount" (electricity and energy); "electricity is the only known constituent of ponderable matter"; and energy "manifests itself by changes in the location of electricity." The first chapter is concerned with atomic structures consisting of electrons and protons, and indicates the classification of these by their "atomic number" or excess of nuclear protons. "Satisfied and unsatisfied systems" are the subject of the second chapter, and here is outlined the causes of chemical reactivity, valency, atomic disintegration and ionisation. The newer conceptions of electron shells is the basis of the periodic tabulations in the third chapter. Other chapters deal with mass and inertia, radioactive disintegrations, conduction of electricity, the proof of an electron, isolating a proton, atomic numbers, the quantum of energy, light radiation, energy and its availability. Within a few years beginners in chemistry will be taught as routine the essentials enumerated above. Full comprehension is not possible without

extensive mathematical training and knowledge of the laws of the conservation of energy. Nevertheless, the author presents the wonderful work of Rutherford, Moseley, Millikan, Planck and Einstein in readable and understandable form, and it is the understanding of the principle that counts; its proof can be left to the experts. Anyone connected with chemistry who is not conversant with the modern views of atomic and molecular structure should bring himself up to date by reading this book. The task is as pleasant as it is instructive.

The Volatile Oils.—By E. Gildemeister and Fr. Hoffmann. 2nd edition, by E. Gildemeister. 9½ in. by 6½ in. Volume II., pp. 685; and Volume III., pp. 777. With numerous illustrations and several coloured maps. 32s. net each volume. Longmans, Green & Co., 39 Paternoster Row, London, E.C.

The appearance of these two volumes completes the English edition of this treatise on essential oils, which is written under the auspices of Schimmel & Co. A world-war has elapsed since the first volume was issued in 1913. The second volume was printed in 1916, and published in 1920, and the third volume is dated 1922. Both Volumes II. and III. in reality comprise one work dealing with the individual "essential oils" classified botanically according to plant origins in the "Syllabus der Pflanzenfamilien," of Dr. Adolf Engler. Despite the differences in date of printing of the two volumes, it is obvious from statistical tables that both relate to knowledge available up to end of 1914. The belated publication robs the work of its "newness," especially as past production statistics have no bearing on present prices and production, and will have little value in elucidating modern world economics of the essential-oil industry. The other side of the work, that of cataloguing and indexing the characters of known volatile oils, however unimportant, is carried out with a thoroughness characteristic of the country of origin. Indeed, were it not for the interesting details of methods of production and distillation the two volumes would be truly a "Katalog" of physical constants interspersed with production statistics. Happily, details of collection or growth of materials, description of distillation methods, ancient and modern, discussion of odoriferous principles and assays, break up the routine subject matter sufficiently to relieve tedium, while the illustrations, coloured maps, and clear type make the volumes eminently readable and prevent interest flagging. Volume II. deals with volatile oils from the few oils from cryptogams, and those from phanerogams up to and including part of the Rutaceæ. Turpentine is the first important product, and this occupies 90 pages. This shows well the difference between the old, wasteful methods of collection, and modern attempts at conserving pine forests. Pine-tree oils, pine-needle oils, oils of juniper, savin, cedarwood, make the pine family section occupy 178 pages in all. The "grass" oils, which follow, include Dr. Otto Stapf's work in clearing up the intricacies of the botanical species yielding lemongrass, gingergrass, and citronella oils. This is well presented. There follows, among the higher monocotyledons, tuberose and orris-oil; as if to emphasise whatever evolutionary relationship there may be, chemically and odoriferously, these first three section are far apart. Cardamon oil (p. 285), sandalwood oil (p. 331), chenopodium oil (p. 359), star-anise oil (p. 379), ylang-ylang oil (p. 393), nutmeg oil (p. 410), cinnamon oil (p. 419), and camphor oil (p. 447), mark the further "milestones" of progress and diversity. Rose oil (p. 549 to 577) is accorded the "honour" of a coloured chart of production statistics with exports of "otto of rose," far exceeding production of true oil. In all 416 monographs on essential oils are included in Volume II., starting with the only algal oil (from *Trentinohlia Johli-thus*, which has an odour recalling violets), and ending with the oil from the leaves of *Aegle Marmelos*, the bael fruit tree, the leaves of which are used by natives as a remedy for foot and mouth disease. The "oils of the agrumens" commence in Volume III., the importance of effect outweighing division of the Rutaceæ. Lemon, bergamot, and neroli oils fill the bulk of the first 100 pages. The description and photographs of lemon oil production are, indeed, illuminating. The next family to prove the economic importance of oil glands is the

myrtaceæ, firstly in "fruit" (cloves) and then in leaves (eucalypts). In dealing with the latter (p. 213 to 304), the classification followed is that of Baker and Smith (*i.e.*, according to chemical character of oils, and not the true botanical arrangements of J. N. Maiden, which would be consistent). The flavouring oils of the umbelliferous fruits, and the mint family, are separated by sweet-smelling lavender and rosemary. Thus the arrangement again results in interesting details breaking up dry statistics. In all, 952 oils are described, and in only 15 is the botanical origin not known. The general plan followed consists in giving commercial production, statistics (if available and usually ending 1913), then botanical origin, details of production (growing centres, distillation, or expression), properties, changes on storage (if any), composition (in detail, with chemical formulas where known), and examination (or assay). Coloured maps are given of important growing districts (caraway, camphor, citronella, lavender, lemon, etc., clove, and otto of rose). The sponsors for the work have endeavoured to be impartial in their criticisms of controversial subjects, both of production and assay. They and the whole essential oil industry are under a cloud at the moment. Nevertheless, the advances recorded in the work show that future progress will be rapid when times of ease arrive again. Economic conditions favouring the production of the finest possible products seem further away than ever. Archaic methods, impoverished labour, ignorance, adulteration and speculation have long impeded the staple use of essential oils; but this work should be a guide to the spirit, as well as the knowledge of true advancement in the subject it covers. The work of translation has been admirably done by Edward Kremers.

Organotherapy

No pharmacist of middle-age with a dispensing connection will have failed to observe that a gradual change has taken place in the character of the medicines ordered by practitioners during the last ten or twenty years. This change has been much more pronounced during the last ten years than during the preceding decade; and for this three outstanding events appear to be mainly responsible—the introduction of the National Insurance Act, the war, and the establishment of the Ministry of Health. According to Bacon, "Writing maketh an exact man"; and the mere fact that many practitioners who rarely wrote out their prescriptions were, in 1913, called upon to put into a concrete form the details of the medicines they wished to prescribe was sufficient to improve their habits in this respect, and to make them think more about the remedies they employed. Many new medicinal remedies and surgical aids came into use because of the war. Service with the army offered to medical practitioners opportunities for putting various theories into practice, and for studying the effects, under varying conditions, of different methods of treatment. The discoveries made and the experience gained by medical men during the war were, upon demobilisation, carried by them into their private work. The establishment of the Ministry of Health as a separate Government department has greatly improved the general position of the profession of medicine. Under its rule it has been possible to carry out the investigation of special forms of treatment, and to perfect and prove many theories which could not be adequately examined by private investigators. Moreover, the work of the Medical Research Council has been of importance in various branches of preventive medicine. In the case, however, of some of the newer remedies which have been introduced into medical practice their use has not yet passed the experimental stage. Chiefly does this hold good in the case of vaccine therapy and organotherapy. Recent influenza epidemics and the success attending the inoculation of the troops during the war have largely assisted in perfecting vaccine treatment. Possibly, but to a less extent, the experiments of Continental investigators, such as Steinach and Voronoff, have contributed to popularising the treatment of certain conditions by preparations of animal substances. Treatment of disease by preparations obtained from animals is, of course, by no means a modern idea. The physicians

of Greece, Rome and Egypt employed such remedies, and the London Pharmacopœias of the seventeenth and early eighteenth centuries contained a wide range of animal products. The present practice of employing organic preparations seems likely to be continued, and the number of such remedies is ever increasing. It is interesting, therefore, to note the opinion of medical men as to the value of these preparations.

THE OBJECTS OF ORGANOTHERAPY

At a recent meeting of a section of the Royal Society of Medicine the present position of organotherapy was considered, and several specialists gave the results of their experiments with this method of treatment. Organotherapy has two objects: (1) To carry out a theory of substitution therapy—*i.e.*, to replace artificially the internal secretion of a gland which has ceased to function efficiently; and (2) to use extracts of organs or purified chemical substances obtained from them in order to produce certain effects in other organs. With regard to the second object of treatment, it appears to be accepted that in the case of several preparations—*e.g.*, those of the suprarenal and pituitary bodies—valuable results are obtained. But, so far as the first object is concerned, it appears to be a matter of agreement among experts that the advantages generally claimed for substitution therapy have not been supported by the results of treatment. As an instance, it was stated, at the meeting referred to, that it has never been shown that treatment by pituitary extract has the slightest effect in remedying the symptoms thought to be due to pituitary insufficiency. Thyroid appears to be the only exception to this conclusion. The method of administration is of the greatest importance. In spite of the fact that so many of the proprietary brands of animal products are made in tablet form, it was definitely stated that many of the substitutes recommended for oral administration produce no physiological action at all when so taken. If administered hypodermically, some good results can generally be obtained; but many glands give best results only when actual implantation of the fresh gland itself is resorted to. This, of course, is the method followed in the rejuvenescence treatment of Voronoff.

THE POSITION OF THE PHARMACIST

To the pharmacist, who is the distributor of these remedial agents, the question of organotherapy is not without interest. The results so far achieved by this form of treatment are, in one direction at least, admitted to be negligible, although the number of prescriptions met with confirms one in the opinion that it has a definite place in medical practice. One is led to ask, therefore, How long should such experiments continue? The use of any possible remedy for the ailments from which we poor humans suffer should not be discouraged merely because the treatment is experimental. But, after proper trial has been made, only those methods should be persisted in which have been proved to be valuable in the maintenance and restoration of health. From past experience pharmacists are well aware that the demand for any particular remedy does not necessarily depend on the results which have followed its employment in the experimental stages, but is largely the result of persistent and extensive advertising. The ignorance of many medical men of the principles of organotherapy and the assurance with which many of these products have been recommended, coupled with the fact that the novel idea of treatment by glandular substances has appealed to the imagination of the general public, have brought about a boom in the prescribing of these remedies in which pharmacists have had to participate. Not for a moment is it suggested that the pharmacist has any right to call in question any methods of treatment which medical men may choose to employ. There is, however, one aspect of the case which probably appeals to the dispenser more than to the prescriber. All these preparations are expensive, and much money is being spent on medicines the usefulness of which, according to specialists who are qualified to express an opinion, is at the best only problematic. The frequent prescribing of such drugs therefore may cause an unjustifiable drain on the pockets of private patients, and on the drug fund in the case of Insurance patients.

Pharmaceutical Botany

XX. Angiosperms

THE descriptive word "flower" originally applied only to the specialised reproductive branches (or dwarf shoots) of angiospermous plants. All our primary ideas of plant life are associated with this most successful or dominant group of modern times. Comparisons are made therewith, though they are the last comers in the plant kingdom. No transition types are found in fossil records, the first true flowering plants appearing as highly differentiated as to-day. Indeed, were it not for the clue afforded by the fossil *Bennettites* (*Cycadeoidea*),

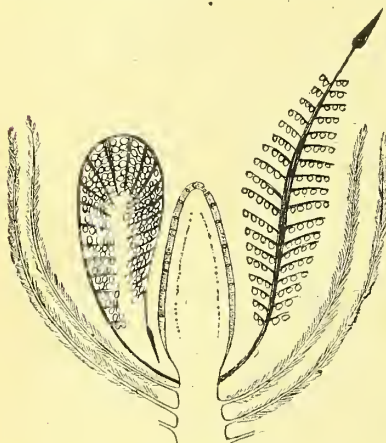


FIG. 56.—Primitive flower of *Bennettites* (diagrammatic).

the primitive type of flower would still be obscure. The remarkable strobilus (or flower) of the cycad-like *Bennettites* (Fig. 56, diagrammatic) consists of a perianth (or bracts) enveloping the stamens, and a central cone with naked ovules embedded therein. The great point is that the arrangement of fern-like microsporophylls and gymnospermous ovules is that of an Angiospermous flower, the stamens being

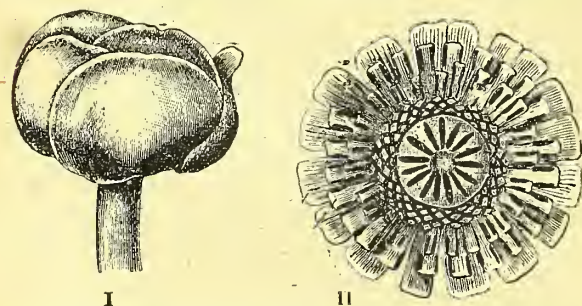


FIG. 57.—Water-lily (*Nuphar luteum*). I. Flower showing simple perianth (of spirally arranged floral leaves). II. The same, viewed from above, showing transition stages between petaloid stamens and true stamens.

below the carpels. Such a flower is amphisporangiate (*amphi*=both) in containing microsporophylls and macrosporophylls in the same flower. It corresponds to a dwarf shoot with spirally arranged leaves (protective and reproductive) placed serially in ascending order. The water-lily (Fig. 57) shows a primitive type of Angiospermous flower. The "perianth" of (sterile) protective leaves shows transition stages to the (fertile) microsporophylls or stamens, both being numerous, spirally arranged and crowded together by non-development of spaces (or internodes) between

the primitive type of flower would still be obscure. The remarkable strobilus (or flower) of the cycad-like *Bennettites* (Fig. 56, diagrammatic) consists of a perianth (or bracts) enveloping the stamens, and a central cone with naked ovules embedded therein. The great point is that the arrangement of fern-like microsporophylls and gymnospermous ovules is that of an Angiospermous flower, the stamens being

parative study of flowers, a wise choice confirmed by the discovery of *Bennettites*. The formation of carpels normally ends the growth of the floral branch (hence the term "dwarf" shoot, which applied to a shoot of "limited" growth). The main line of evolution in flowers has been to reduce the numbers of floral parts, which often appear at the same level (or whorled) by suppression of internodes. As our articles continue, it will be seen that spiral arrangements of sepals, petals, stamens or carpels

are replaced by development in whorls with numbers of members in each whorl tending to become five or four (Dicotyledons), or three (Monocotyledons). The form, colour and arrangement of floral parts will be greatly modified according to needs of pollination.

Floral parts become united, which at times makes distinction of different floral members somewhat difficult. The Angiosperms are distinguished as plants with seed-producing ovules contained in closed cavities (or ovaries). The result is that pollination is *extrasteminal*, which characterises this great group. An extension of the ovary wall (or carpel) known as the stigma is the recipient of the pollen (Fig. 60). The success of the Angiosperms lies in the greater certainty of producing fertile seeds. The group is divided into two classes, according to whether the tiny germ (embryo), by which the plant is represented in the seed, has one



FIG. 58.—A. Section of buttercup, showing differentiation of perianth into (protective) calyx and (attractive) corolla. Sepals and petals few (five) in number. Stamens and carpels numerous, spirally arranged. B. Collection of carpels known as pistil, showing insertion of two stamens below separate ovaries.

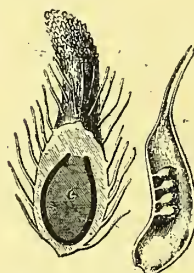


FIG. 59.—Single-seeded and several-seeded ovaries in the Ranunculaceae family.

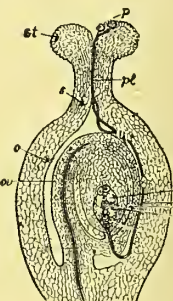


FIG. 60.—Longitudinal section of Angiospermous pistil, showing ovary wall, o, extension of same or style, s, and stigmatic surface or stigma, st, for reception of pollen; p, pollen-tube; pt, pollen-tube; o, ovule with its two coats or integuments, in; e, egg-cell; m, megaspore or embryo-sac.

(Monocotyledon) or two (Dicotyledons) seed leaves or cotyledons. Each ovary may produce many or only one ovule, but the latter will almost invariably "set" its seed (Fig. 59). The student can appreciate that pollen grains of the buttercup correspond to the microspores of *Selaginella*, but to compare the stamen or carpel with a whole fern-leaf would require too great a stretch of imagination, were it not for intermediate types of plants. It will be recalled that in our early plant types each cell was vegetative and reproductive. In Angiosperms reproductive and vegetative functions are separated. This division of labour is characteristic of higher plants and is the cause of their increasing complexity. It must not be forgotten that reproduction is the ultimate object of plant life, and though this is relegated to special shoots (or flowers), the delay in their formation is to ensure sufficient food material for their nutrition, and for the new plant contained in the seed. The Angiosperms send out this new or embryonic plant with some food material to start life.

Births

Notices for insertion in this column must be properly authenticated

ANDREW.—At Rockdene, Kirkburton, on August 26, the wife of F. Andrew, chemist and druggist, of a son (stillborn).

COLEMAN.—At 1 Endsleigh Place, Bedford, on August 22, the wife of Walter G. Coleman, and daughter of the late Mr. W. S. Bowler, chemist and druggist, Belper, of a daughter.

Marriages

BROOKS—MATTHEWS.—At Tyldesley Parish Church, on August 23, Fred Arthur Brooks, M.P.S., to Lilian Nora Matthews, Tyldesley.

LIPKIN—URDING.—At the Princes Road Synagogue, Liverpool, on July 24, by the Rev. S. Frampton, B.A., and the Rev. S. Phillips, Reuben Lipkin, M.P.S., Lark Lane, Sefton Park, to Evelyn Urding, Botanic Gardens, Edge Lane.

Deaths

FAWN.—At 27 Claremont Road, Bishopston, Bristol, on August 20, suddenly, Mr. Frederick Charles Fawn, chemist and druggist, aged sixty-five.

PARRY.—At Pandyffryn, Bettws-y-Coed, on August 19, Mr. Robert Parry, chemist and druggist, aged sixty-five.

Wills

MR. THOMAS GOTT PARKINSON, Carlton House, Burnley, Lancs, wholesale druggist, who died on July 3, left estate of the value of £41,286 11s. 2d. gross and £40,291 6s. 7d. net. He gives £200 and the household effects and motor-car to his wife, £50 to Mr. Hawkswell, £10,000 and his residence to his wife during widowhood or the income from £3,000 should she again marry, with power of appointment thereover in favour of his children and the remainder of the property to his children.

MR. JAMES BANCROFT, Rooklands, Headless Cross, Redditch, formerly of Halifax, Yorks, and of Savile House, Dorridge, Birmingham, retired pharmaceutical chemist, who died on March 21, left estate of the gross value of £12,555 14s. 2d., with net personality £11,040 11s. 9d. The testator left £100 and his household and personal effects to his wife absolutely, and all other his property upon trust for his wife during widowhood, or to pay to her a life annuity of £150 in the event of her remarriage, with remainder to his children or their issue as his wife may appoint or equally.

MR. FREDERICK GILES HUNT, Oughtrington Hall, Lymm, Cheshire, chairman of Joseph Crosfield & Sons, Ltd. (now amalgamated with Lever Brothers, Ltd.), of William Gossage & Sons, Ltd., and the China Soap and Candle Co., Ltd., director of the Erasmic Co., Ltd., of the Compagnie Erasmic, Paris, of Société Anonyme d'Hydrogenation, of Hydrogenators, Ltd., and of the Palm Oil Estate Managers, Ltd., who died on June 25, left unsettled property of the gross value of £73,758 14s., with net personality £57,531 7s. 2d. The testator left to his wife £250, household effects as she might select to the value of £5,000, the proceeds of a life insurance policy for £1,000 upon trust for his daughter Isabel Mary, and her issue, and all his other property upon trust to pay to his wife for life £2,100 per annum free of tax or five-sixths of the income from his estate, whichever should be the greater, and hold the balance upon trust for his daughter Isabel Mary: on the decease of his wife, £1,000 to the Victoria Hospital for Children, Chelsea, S.W., and other bequests.

Personalities

PROFESSOR ARTHUR G. GREEN, F.R.S., F.I.C., has resigned his position as director of research and chief chemist of the British Dyestuffs Corporation, Ltd.

In the "Daily Graphic" of August 29 appears an informative article, entitled "Pharmacy as a Career for Women," by Joan Kennedy, which, we suspect, is the pen-name of a lady well known in Metropolitan pharmacy.

THE circle of chemists in Shanghai has been diminished by the departure for England of Mr. H. B. Reddick, who for the past fourteen years has been connected with the business of Allen & Hanburys, Ltd., as manager. Mr. Reddick's genial disposition and consideration during difficult times has been much appreciated by all connected with the drug trade in China, and he will be missed by a large number of business and personal friends.

Business Changes

MISS C. M. JOYCE, chemist and druggist, will shortly open a pharmacy at Ashby Square, Loughborough.

MR. E. HOMER, chemist and druggist, has opened a new shop at 211 Queen's Road, Londonderry, Smethwick, Birmingham.

MR. ASHWORTH, chemist, has acquired the business of Mr. W. T. C. Riches, 51 Bridgnorth Road, Stourbridge, who may be addressed at 14 Victoria Road, Northampton.

ROSE & Co., essential-oil distillers, Haarlem, Holland, have opened an office and warehouse at 32 Great Dover Street, London, S.E., to which communications may be addressed.

CORBYN, STACEY & Co., LTD., manufacturing chemists, have removed their factory and offices from 673 Commercial Road East, London, E.14, to Hunts Lane, Stratford, E.15.

ASHTON, SIDNEY, LTD., chemists, are opening a pharmacy at Moorfield Arcade, Lapwing Lane, Didsbury. The managing director is Mr. T. B. Ashton, Ph.C., late manager of the Levenshulme branch of Boots, Ltd.

THE business carried on by Messrs. Harrison & Morrell at 260 Upper Tooting Road, London, S.W.17, under the style of Nettles Cash Chemists, has been acquired, as from September 3, by Messrs. H. J. Yerrell, G. Anderson and S. C. Anthoney (see p. 323).

Gazette

Partnerships Dissolved

SYKES, H., and SYKES, R., Moldgreen and Pack House Yard, Huddersfield, chemists and druggists, under the style of Henry Sykes & Son, as from December 31, 1922, the business to be carried on by R. Sykes.

Bankruptcy Acts

RECEIVING ORDER AND ADJUDICATION

WHITE, D., 157 Uxbridge Road, Hanwell, Middlesex, lately residing at 11 Lynton Avenue, West Ealing, chemist.

Deeds of Arrangement

McKernan, James Leo, 18 Duke Street, Warrenpoint, co. Down, druggist. The following are among the creditors (see *C. & D.*, August 18, p. 268):—Boileau & Boyd, Ltd., £45 15s.; Chemists' Sundries, Ltd., £22; A. de St. Dalmas & Co., Ltd., £22; W. Doig & Co., £22 15s.; Thomas Guest & Co., Ltd., £12; J. & J. Haslett, Ltd., £24 10s.

Trade Notes

THE prices of Topax foot remedies are set forth in the advertisement of The Topax Co., Barnet, in this issue.

VIROL BONUS.—Between September 1 and October 15 Virol, Ltd., are offering a 5 per cent. bonus on all orders for Virol and Virolax.

A NEW EDITION of "Hoyt's Cyclopedia of Practical Quotations" is announced by Funk & Wagnalls Co., 134 Salisbury Square, London, E.C.4, on another page.

ADVERTISING CAMPAIGN.—International Laboratories announce an advertising campaign, beginning on September 1, in connection with Parminit, a special discount being allowed on six-dozen quantities.

SPURWAY ET CIE, LTD., 39 Great Eastern Street, London, E.C.2, announce on another page that the delay in filling orders for "Elster Platz Cologne" and Old English lavender has now been overcome, and all orders in hand will shortly be executed.

POPULAR PASTILLES.—The middle of September will see the commencement of an energetic advertising campaign in connection with "Grips" first-aid pastilles. Plenty of show material suitable for linking up the pharmacy with the advertisements will be supplied with all orders. The agents are Thomas Christy & Co., 4-12 Old Swan Lane, London, E.C.4.

CAPSULES AND PERLES LIST.—The British Drug Houses, Ltd., Graham Street, City Road, London, N.1, have issued a price list of the various capsules and perles made by them. Recent extensions to plant have enabled the company to increase their output and considerably reduce selling prices. Capsules to customers' own formulas can be made, and a special gelatin basis is used for capsules and perles exported to hot climates.

ASHES OF ROSES BONUS OFFER.—Particulars of a bonus offer of Ashes of Roses by A. Bourjois & Cie, Ltd., 66 Carter Lane, London, E.C.4, will be found elsewhere in this issue. An advertising campaign on a national scale is to be launched during the autumn, and particulars of the bonus offer will shortly be posted to pharmacists. We note that the protected price of the Ashes of Roses miniature perfume has been increased to 1s.

DUNELT VAN OUTFIT.—Attention is called in the advertisement of Dunford & Elliott (Sheffield), Ltd., Bath Street, Birmingham, to a "Double-Purpose Outfit," which can be used for delivering goods and, when required, can be adapted to private use by the exchange of a sidecar body for the van portion. The price is quite moderate. The company inform us that one of their two-seaters has been entered in the A.C.U. six-days' trials, and that a gold medal has already been won by a similar outfit of their manufacture.

BOTTLE-CLEANING PLANT.—A copy of "The Way to Clean Bottles," a handsomely printed brochure (14 in. by 10 in.) issued by Mr. Thomas Hill, bottle-cleaning specialist, 247 and 249 Beverley Road, Hull, has just reached us. In addition to serving its primary purpose of giving accurate details of the plant manufactured at Stepney, Hull, by Mr. Hill, the catalogue comprises a wealth of information upon the theory and practice of bottle-cleaning. To take one instance, the section devoted to sterilising apparatus occupies six pages, giving a vivid idea of the efficiency attained in this important feature of present-day requirements. What was almost literally a rule-of-thumb process in cleaning bottles is more and more giving place to the use of machinery in cases in which glassware has to be dealt with in any quantity, and we are impressed by the way in which every detail of bottle-cleaning on a large scale appears to have been thought out and provided for.

INDEX TO VOL. XCVIII.—The index for the first volume of THE CHEMIST AND DRUGGIST for 1923 is now obtainable. Copies have been dispatched to the subscribers whose names are on the list of those desiring the indices as published. Others can have their names added to the list free of charge.

New Books

Osborne, R.—*How to Organise and Conduct an Export and Import Business.* 8½ by 5½ in. Pp. 87. 4s. Effingham Wilson, 16, Copthall Avenue, London, E.C.2. [The chapters deal with the foundation of business efficiency, business policy, office accommodation, office routine, functions of the manufacturer and merchant, indents and quotations, finance, import trade, bank assistance and Government aid to commerce. A concisely-written and well-arranged book of use to all engaged in the larger branches of trade.]

Simmonds, C.—*Alcohol in Commerce and Industry.* 7¼ in. by 4½ in. Pp. 119. 3s. Sir Isaac Pitman & Sons, Ltd., Parker Street, London, W.C.2. [One of Pitman's "Common Commodities and Industries" series. The late Mr. Charles Simmonds was a superintending analyst in the Government laboratories in London, and had wide experience of the commercial and scientific uses of alcohol. The book is divided into nine chapters, with several tables and illustrations, and affords a comprehensive survey of its subject in simple terms. There is a sufficiently full index.]

Boyle, R.—*The Ventilation of Public Buildings.*—8 in. by 6 in. Pp. 51. 6s. Robert Boyle & Son, 64 Holborn Viaduct, London, E.C.1. [A discussion of the relative merits of "natural" and "artificial" methods of ventilation, illustrated by numerous architectural drawings showing the application of the author's system to churches, theatres, schools and other public buildings. In a foreword Mr. Boyle remarks that "it would appear to be more than doubtful if any form of ventilation will ever be devised that will achieve 'perfect' ventilation under all conditions, or that will satisfy all idiosyncrasies." The book is handsomely printed.]

Lectures on *The Diseases of the Periodontal Tissues due to Infection in their Relation to Toxæmia.* 9½ in. by 6 in. Pp. 96. 2s. 6d. Dental Board of the United Kingdom, 44 Hallam Street, London, W.1. [These post-graduate lectures (which may be obtained from Constable & Co., Ltd., and the leading dental manufacturing companies also) were delivered during the early part of the present year, under the auspices of the Dental Board, by Dr. J. H. Mummery, Mr. J. G. Turner, L.D.S., Sir William Wilcox, and Professor E. E. Glynn. The high reputation of the lecturers sufficiently indicates the authoritative nature of this fourfold discussion of an important subject. There are copious illustrations and a bibliography.]

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

M/258. Antineurasthin (London supply)	B/258. "Soft Spots" arch supports
E/258. Edina rubber corks	L/258. Sovereign drops for horses
M/228. Melville's Ossoline	A/238. Tinct. chinamont
E/203. Offord's hygienic truss	E/258. Uterine Catholicon
W/278. Powdered asphalt (as used in the printing trades)	S/218. "Varenol" liquid nail polish
H/293. Reade's Egyptian salve	P/248. Yatron casein

INFORMATION SUPPLIED

Inquiries regarding the following articles have been answered. The information as to supply will be given to others who send a stamped, addressed envelope to the Information Department, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.4.

Aletris cordial. H/213	"Monitor" tooth brushes. N/218
Azed water softening apparatus. C/158	Perfumed bricks. R/168
Bottling and corking machines. B/218	Pitglandin tablets. L/178
Dismenol. H/218	Promonta. H/185
Dr. Lane's catarrh cure. P/178	Quick white. H/208
Electrical massage machines. E/158	Sonnifen. F/218
Huxley's syrup formates. H/208	Spton tablets. L/178
Nosophen. S/178	Stokes' powder filling machines. S/168
	Turned wood pill boxes. C/218

Observations and Reflections

By Xrayser II.

The Insurance Dispensing Difficulties

with which you deal in your last week's issue (p. 303), arise mainly with the prescriber, and are such as we have been accustomed to from time immemorial, except that they are now complicated by our dependence upon N.H.I. officials. The "practical way" you suggest "out of the difficulty" of dealing with an irregular prescription is open to the objection that it is cumbersome and roundabout; and I do not see why the dispenser should be put to such trouble, with the uncertainty, after all, of getting paid for his service. In any case of irregularity which would entail such trouble as you speak of I should certainly return the prescription to the doctor for correction, and if the patient objected, as probably he would, I should tell him that he must seek his remedy by complaint of the doctor in the proper quarter. This course would not only save me trouble, but would eventually prove beneficial to patients, for it would do more to stop such irregularities than any other course open to us.

Mr. Neville Chamberlain

(now promoted to the Chancellorship of the Exchequer), in his recent defence of the panel system in the House of Commons, admitted that present arrangements are, in some respects, defective and need revision. He went so far, indeed, as to say that a full inquiry into the question of national health improvement and further legislation might be necessary. The particular points he mentioned as those on which reform is most needed were the size of the panels, the charging of private persons for services that come within panel control, and the patient's freedom in the choice of doctors. As reported, he does not appear to have referred at all to our share in Insurance work. The moral for us, however, is that the present system is evidently still on trial, and that we must not hope for any immediate permanent settlement of our position under it. Any rearrangement of our terms of service that we may be able to secure or that may be forced upon us must be regarded as temporary and tentative. There are rumours that an attempt will be made to squeeze us still further in the matter of remuneration, and it is pretty certain that the recent dispensing prosecutions will prejudice our resistance of such an attempt, if not in the official mind, yet with the public. The attempt, if made, must nevertheless be resisted to the utmost of our power, for otherwise we shall be judged conscious of default; but it would be absurd of us to ride the high horse or to refuse any tolerable terms. Our position is precarious and craves careful walking. If we wish to retain permanently any share in National Health service we must be reasonable and patient while the present uncertainty continues.

Rochelle Salt,

now officially declared to be a fine chemical, was an accidental discovery of Seignette, an apothecary of Rochelle, who, making tartrate of potash in 1672, used carbonate of soda in mistake for carbonate of potash. Finding that the resulting salt possessed laxative properties, Seignette, who was evidently a smart man, gave it the high-sounding name "*Sal polychrestum*" (salt of many virtues), and, putting it up in measured doses in envelopes bearing the design of a goose, retailed the same at the French equivalent of our tenpence of that date, a price which might turn the proprietor of a modern "patent" green with envy. After Seignette's death in 1716, his son continued to sell the powder, the composition of which was unknown until it was discovered by Boulduc and Geoffroi in 1731. To distinguish it from the earlier *sal polychrest*, of Glaser the salt was commonly known as "*Sal polychrestum Seignetti*," also as "*Sal Rupellensis*." In 1783 it was introduced into our Pharmacopœia as *natron tartarissatum*, which in 1809 became *soda tartarizata*.

The Glut of Qualified Men,

of which a correspondent spoke so pathetically last week, is, it seems, felt also in South Africa, where it is, no doubt rightly, attributed to the competition of the storekeeper in the sale of medicines. That the same cause operates here, and is, in fact, the main reason, may be taken for granted, a fact which shows the futility of attempting to remedy the evil by making the Qualifying examination more difficult. This would be taking a hair of the dog that has bitten us with a vengeance. The more barriers to qualification we set up the more unregistered traders there are, and the more of these there are the fewer the openings for qualified men. This is the vicious circle in which we find ourselves. Speaking of South Africa, I see that the title "pharmacist" is not officially favoured there, the old "chemist and druggist" being preferred. This is as it should be, since "pharmacy" as a designation for our shops has gone by the board, though in itself "pharmacist" is the handiest and most accurate title we could have.

Horse Oil

(or at least horse fat), the addition of which to our materia medica is being advocated in France, was once official with us, but was dropped, I believe, when the third P.L. appeared. Horse dung, however, was retained till well in the seventeenth century, and Alleyne, writing in 1733, says it was then "very much prescribed" as a balsamic and pectoral in asthma and difficulty of breathing.

Esperanto,

says Mr. Hadfield, is not an artificial language; is it a natural one? Is it the native language of any people? Does anybody instinctively think in it, except, it may be, a few experts, and they only in merely external matters? Let us say, if "artificial" offends Mr. Hadfield, that it is for everybody an acquired language. As such it has this advantage over other acquired languages—that it is generally accepted as a medium of international communication; but it has also this disadvantage—that it has not grown up in the heart of any people and has no intimate associations with the life of any. Its extensive use is discounted to some extent by its intensive failure.

W—wash

is a very interesting section of the Oxford Dictionary, consisting mainly of words belonging to the oldest strata of the language. Only a few of them, however, call for notice here, and they are mostly plant names. Of these "wake-robin," a common name for *Arum maculatum* (given also dialectically to the purple orchis), is the first. It is explained as composed of "wake" and "robin," which is pretty obvious. The suggestion it carries may be guessed from the plant's other popular names and a passage in Lesly's play, "Love's Metamorphosis," which runs thus: "The amorous foresters, or none; for in the woods they have eaten so much wake-robin that they cannot sleep for love." The plant had a place in our Pharmacopœia Londinensis, and was esteemed a remedy for plague and poison. Wahoo is the native name of *Euonymus atropurpureus*. Wall-flower is so called from the wild plant's habit of growing on old walls (it was sometimes called wall-gillofer), and from this habit it was regarded as the emblem of fidelity in misfortune; in medicine it was esteemed as cleansing and tonic. Wallwort is a name for the dwarf elder. The element "wall" here is said to be possibly from the old English *wal* (slaughter), and signifies that the plant is a product of ground fertilised by blood shed in battle: this is to some extent corroborated by the other name given to it, that of Danes'-blood. The plant was in our first P.L., and was given for dropsy. Walnut is foreign nut, the first syllable being equal to walsh or Welsh (foreign). Walnuts were also official with us, and were prescribed for worms. Wash as a medical term does not occur until the seventeenth century, when we begin to meet with washes for the teeth, for the hair, for the complexion, etc.

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Editorial Articles

War Medical Services—I

THE great war of 1914-18 had hardly commenced when Professor Adami, Montreal (now Vice-Chancellor of the University of Liverpool), suggested, in a letter to the late Sir William Osler, the desirability of having a record of its medical history in an accessible form. Such a record has seldom been compiled—at any rate, in connection with British campaigns. Professor Adami's suggestion was passed on to the Director-General of the Army Medical Service, and the result was that on November 11, 1914, Lieutenant-Colonel (then Captain) F. S. Brereton was selected to undertake the arrangement of the necessary data. The work has begun to appear, under the editorship of Major-General Sir W. G. Macpherson, as part of the "History of the Great War based on Official Documents"; and it will eventually comprise twelve volumes, of which four are to be devoted to the general history of the medical services, two to the diseases of the war and the medical aspects of aviation and gas warfare, two to its surgery, two to its hygiene, one to pathology and medical research during the period, and one to statistics and epidemiology. Some of the topics dealt with in the volumes that have so far been issued appeal chiefly to military, surgical, or pathological experts; but others are the concern of all good citizens, and not least of members of the drug-trade, to whom the record of the collection and distribution of medical stores of all kinds cannot fail to be of interest. The bare statistics, for example, in Volume I. of the General History impress by their magnitude, and would probably have caused the late Mr. Paul Kruger, had he been living, to revise his ideas of "staggering humanity." Provision had to be made at one time or another for the medical service of forces with a total strength of 3,500,000. Hospital beds in the various theatres of war numbered at one time 637,746. The sick and wounded brought to the United Kingdom between August 1914 and August 1920 amounted to 2,655,025. The volume to which we have just referred treats of medical services at home, in garrisons overseas, and in operations against German colonies in West and

South-West Africa and in Tsingtau: its ninth chapter gives, in the compass of thirty pages, a brief and readable outline of the steps taken by the medical supplies branch of the War Office to cope with the ever-increasing demand for drugs, dressings, instruments and appliances of all kinds. The problem of storage accommodation had to be considered from the outset, and it was solved at Woolwich by building additional sheds and living premises, thus trebling the original space during the first year of the war; branch stores of equal extent were added from time to time in the locality, and nine additional depôts were opened in various parts of the provinces, existing ones being also used to the full. Indents were forwarded to contractors with red, green or blue labels attached, these labels signifying that the goods ordered must be ready for dispatch within three, seven or ten days respectively. More than 800 firms were applied to regularly, and upwards of 5,000 special contracts were made. For the three years preceding the war, the average expenditure on medical stores had been £28,500. During the financial year 1914-15 the cost rose to £475,962; in 1915-16 it was £2,656,335; in 1916-17, £2,700,863; in 1917-18, £3,961,932; and in 1918-19, £3,009,928. It is computed that the number of bandages supplied was sufficient to go nearly fourteen and a half times round the world; in addition, 87,721 miles of gauze and more than 7,251 tons of cotton-wool and lint were supplied during the five years August 4, 1914, to August 3, 1919. The following is a table that we have adapted from Table IV. in Appendix E of Volume I.:-

Destination	Bandages : roller, flannel and triangular	Gauze : plain and medicated	Lint : plain and medicated	Cotton- wool : plain and medicated and tissue	
				Yds.	Lb.
Home ..	26,337,843	46,516,398	3,092,947	3,895,405	
France ..	57,226,546	75,715,746	2,077,170	3,450,349	
Mudros ..	1,750,423	2,046,308	128,470	147,437	
Salonika ..	5,474,000	4,783,952	211,235	419,618	
Malta ..	829,057	1,789,974	75,700	164,418	
Russia ..	1,770,918	3,153,320	41,825	301,474	
Egypt ..	13,270,828	12,884,827	538,100	635,075	
Mesopotamia ..	959,287	1,488,040	12,310	137,230	
India ..	653,250	834,432	74,468	45,066	
E. Africa ..	471,040	687,706	65,300	38,775	
S. Africa ..	222,042	145,574	27,698	14,055	
Ships, etc. ..	693,524	1,487,895	47,112	152,559	
Miscellaneous ..	3,631,170	3,152,024	172,503	317,147	
Totals ..	113,290,282	154,685,996	6,564,838	1,323,120	

The reserve of dressings kept at Woolwich was originally calculated on six months' demand; this was eventually increased to a twelve months' estimate on account of the enhanced difficulty in obtaining supplies and increasing risk due to enemy submarine warfare. Nearly 553,000 cases and bales of medical stores were sent overseas during the war, and the total loss resulting from enemy action amounted to 5,000 of these, valued at approximately £70,000. The number of base and advanced depôts in the various fields of war grew till it reached fifty, and the original cases made of aluminium had to be replaced later by similar ones of malleable steel. Turning to the contents of these cases, it could be wished that more space had been allotted to details of the comparative frequency of prescribing the principal drugs or combinations of drugs in different fields of action; as it is, passages like the following are as occasional as they are instructive:-

Iodine ampoules containing 30 minims of tincture of iodine were introduced in the early days of the war for use in conjunction with the first field dressings, which contained gauze impregnated with 2 per cent. to 3 per cent. by weight

of double cyanide of mercury and zinc. In July 1917, however, it was represented from France that the consulting surgeons there were of opinion that the addition of iodine to the first field dressings served no useful purpose, and caused blistering of the skin in many cases when used in conjunction with cyanide gauze. Consequently . . . it was decided to abolish the use of the iodine ampoule in conjunction with the first field dressing.

From one of the tables in the copious appendices to Volume I. we learn that the number of iodine ampoules issued amounted to 11,968,618. An antiseptic first field dressing was adopted in preference to an aseptic one on the grounds that the latter could not be kept sterile more than a few weeks, that the jaconet wrapper would not stand the heat of an autoclave, and that an aseptic dressing was liable to contamination during application in the field. The white bandage of the first field dressing was soon considered to be too conspicuous in the field, and was replaced by a khaki-coloured one. Much trouble was experienced in devising a dye harmless alike to wounds and to the fabric. The first dyeing process, a potassium permanganate and glucose one, had to be abandoned, as it was found to weaken the bandage; eventually a dye composed of cutch, fustic extract and copper sulphate was devised. The system adopted for consignments of clinical thermometers was that if 5 per cent. failed to pass the test at the National Physical Laboratory the whole quantity was rejected. The number issued during the war was 1,086,000. In connection with x-ray apparatus, difficulty was experienced in obtaining satisfactory x-ray and valve tubes, America being for a time practically the only source of supply. Encouragement was given to British manufacturers "where such a course was consistent with efficiency," and by the year 1917, we learn, 40 per cent. of the tubes required by the Army were being produced in Great Britain. The services of the Imperial College of Science and Technology are acknowledged in connection with testing and instructional work in this department. The supply of spectacles was taken in hand in 1916, and ninety-three ophthalmic centres were established in the home command, as well as thirty-one in French and other fields of action. The number of pairs of spectacles issued to home centres was over 193,700, and 472,488 lenses were sent overseas. In addition, 300,000 pairs of sun-goggles were dispatched to Egypt and Mesopotamia; and the number of glass eyes supplied officially between 1916 and 1919 was 88,412. Five different dental outfits were designed, involving a total issue of 1,867, besides 4,000,000 artificial teeth and several hundred tons of plaster of Paris. Into the details of this feature, however, and of such matters as electro-medical equipments and surgical instruments, it is unnecessary for us to enter. In a future article we hope to examine the record relating to drugs and chemicals.

Eucalyptus Oil Shortage

It is common knowledge that, for over two years, buyers of eucalyptus oil have been able to purchase their requirements at prices which, in many cases, were below the original cost of production. This year a new situation faces the consuming section of the trade, although it cannot have come as a surprise. The large spot stocks in London, which about fifteen months ago amounted to over 100 tons, have been slowly liquidated, and London supplies are to-day probably lower than they have ever been before. It is practically certain also that the low prices of 1921 to 1923 have gone with the supplies that created them. Reasons for this are given in an interesting

article by Mr. H. D. Hardinge, Bendigo, Australia, which appeared recently in "The Chemist and Druggist of Australasia." Mr. Hardinge comments on an extract from the "British Australasian," which was published in THE CHEMIST AND DRUGGIST, I., 1923, p. 580, in the course of which it was stated that shipments of eucalyptus oil to England have greatly diminished, although there are now more people engaged in the industry than ever before. He states:

The latter portion may have been true in 1920, but is not true at the present time. About two and a half years ago there were for a very short time in Victoria over one hundred firms distilling various grades of oil, and the result was over-production, a glut of the market, and a fall in prices. From all parts of Victoria comes the same story of stagnation. Moreover, the industry has never been upon a sound or payable basis. Some of the reasons for this are as follows:—It is an open-air industry entirely dependent on the seasons. Men cannot (will not) work in wet, or damp weather, nor in the very hot part of the day. The recurring draughts retard the growth of leaf, and much diminish the quantity of oil yielded, especially in the "Mallee" districts, where all the highest grade of oil is produced. It is work calling for hand labour, the cutting, gathering, and earing of the leaves. . . . The useful "Mallee" having been cut, the useless grows much stronger and quicker; the useful is choked, and in a second or third year the proportion of useful leaf is much diminished. A systematic rooting out of the useless "scrub" is too costly at present price of oil. It is possible to promote the growth and increase the yield of oil by cultivation, but here again it is a matter of cost. . . . Distillers are almost all in a very small way, and are never able to get beyond the hand-to-mouth stage. Even in a good year the profit is never sufficient to make up for a bad season. Many, after struggling on for a few years, are starved out. . . . Want of capital has been a great drawback, but the cause is the want of profitable return for labour. After nearly thirty years in the business I have never heard of anyone able to retire on a competency made out of distilling eucalyptus oil.

Mr. Hardinge also points out that the prospective profit was never large enough to attract capital, and recalls the one exception of a large company with a subscribed capital of some £100,000 which went into liquidation after three years without a dividend. Too much oil was produced, and the bulk of that distilled during the short "boom" period was badly-made, low-grade oil. The result in England and other overseas markets is well known. Thanks to the completeness of the slump, production in the various districts of Victoria has dwindled away, and in the Raywood district, according to Mr. Hardinge, distillers have had to sell their oil to dealers who got any profit that was going. "The distillers," he says, "have been 'sweated,' and men owning their own plants have had to 'work long days for less than labourer's wages.'" A further reason for the falling off in production is that the high wages in the city attract all who can get away. Hired help is too expensive at 2s. an hour, as up till now eucalyptus oil distillers have been unable to pass on the increased costs. In addition to wages, which are double pre-war rates, charges of all descriptions are higher. British merchants, says Mr. Hardinge, expect to obtain eucalyptus oil at pre-war prices. But do they? What they do look for is a cheap source of supply, which is hardly the same thing. They have actually been obtaining the oil at much less than pre-war prices for the three years' period now drawing to a close. Any fault, however, lay with conditions in Australia. It is generally

acknowledged that eucalyptus oil, which is twice distilled and contains 70 to 75 per cent. and upwards of cineol, has been one of the cheapest oils that is produced anywhere; but Australian distillers and rectifiers cannot expect consumers and merchants in other parts of the world to fix their prices for them. Except for a small output of eucalyptus oil from Spain (this is lower percentage oil and is consumed locally), Australia possesses a monopoly, and it should not be impossible to obtain an all-round economic level of prices. With cheap stocks definitely cleared, the prospects for the prices of the next crop oil now being distilled are better than they have been for some time, provided production is controlled, so far as possible, by the demand, and there is now an excellent opportunity for firmly establishing the industry on a sound basis. The present price of usual 70 to 75 per cent. cineol oil is 2s. 1d. to 2s. 2d. per lb. It is expected shortly to reach at least 2s. 6d., which is not an unreasonable price in view of the fact that in 1913-14 eucalyptus oil was selling at 1s. 6d. With regard to the cineol test, Mr. Hardinge, in his article, refers to the unsatisfactory methods of determination which seem to give a varying cineol content. This point has previously been dealt with by various investigators, and the only solution appears to be to state the method by which the determination of cineol has been made.

Customs and Excise Report

THE annual report of the Customs and Excise for the year ended March 31, 1922, which was published recently deals with quite a run of interesting matters concerning the chemical and drug trades, as a result of new legislation, including a valuable summary of the German reparation duties, the key industries duties and an abridgment of the Finance Act, 1921, which gives the changes in taxation. The report defines the financial position as regards Customs and Excise duties of the Government of Northern Ireland, and of the Irish Free State. The revenue account shows receipts of £323,355,000, or a net surplus of £355,000 over the estimates. Among the surpluses were sugar £2,760,000, tobacco £2,208,000, beer £1,865,000, tea £1,582,000, and key industries £140,000. In regard to spirit duties, there was a deficit on the estimate of £7,181,000, and on comparing these figures with the previous year's receipts we notice a decrease in revenue amounting to £8,216,000, indicating a decline in consumption of about 2½ million proof gallons. The total decrease in clearances was about 12 per cent., but the clearances of home-made spirits only fell by 917,000 gallons, about 6 per cent, while those of imported spirits fell by 1,585,000 gallons, or about 34 per cent. There are also serious declines in receipts from rum, brandy, wines, etc. The Customs duties on imported table waters, cider, and perry was £15,872, a slight increase on the preceding year. Table waters, cider and perry consumed in the United Kingdom yielded £1,247,339, the lowest on record for a full year, a result which may be attributed to the excessive taxation of these articles. The receipts on table waters, cider and perry consumed and imported in 1921-22 were £1,263,000, a decrease of £18,000 on the receipts of 1920-21. The consumption of sweetened table waters and of herb beer declined, but that of unsweetened table waters increased. The Budget estimate for the receipts from the sugar duties in 1921-22 was £34,000,000, against receipts of £30,445,000 in the previous year, representing a consumption of 1,300,000 tons, against about 1,100,000. This increase was anticipated in spite

medicines in this country. There were 18,239 methylated spirit retailers in the United Kingdom, or 1,166 more than in 1920-21, and of table-water manufacturers the number was 6,569, or 1,066 more than the preceding year. Under the German Reparation (Recovery) Act, 1921, we notice that £3,680,000 was collected and paid into a special account under Section 1 (3) of the Act, to be applied in such manner as the Treasury may direct towards the discharge of the obligations undertaken by Germany under the Treaty of Versailles. It need hardly be said that this amount represents 26 per cent. of the purchase price of goods first consigned from Germany to the United Kingdom. Other matters dealt with in the report include the operations of the Key Industry Duty, which came into operation on October 1, 1921. The yield (which, therefore, covers six months only) was a mere £140,299 on goods imported to the value of £421,744; the amount realised from fine chemicals was £59,295, the value of the goods being £178,718. The report includes the usual full Customs tariffs, giving also the Imperial preferential rates, and the Customs drawbacks and allowances.

Use	Quantities used	
	1920-21	1921-22
Manufactures :—	Gallons	Gallons
Finish for sale	276,443	264,035
Varnishes, polishes, or lacquers for sale ..	956,939	1,073,488
Stains, paints, enamels, etc., for sale ..	97,385	94,488
Varnishes, finish, stains, polishes, lacquers, etc., or for polishing purposes in manu- facturers' own workshops	296,238	274,890
Felt and other hats	36,964	31,044
Silk, crape and embroidery	3,195	2,298
Artificial silk	9,868	41,740
Artificial flowers, etc.	6,508	9,109
Oil-cloths, leather-cloths, and similar sub- stances	174,481	116,918
Celluloid, xylonite and similar substances ..	29,138	32,582
Smokless powders, fulminates and other explosives	12,515	6,228
Fireworks and matches	3,095	4,683
Rubber	3,994	3,893
Electric lamp filaments	5,671	3,949
Incandescent mantles	34,020	9,687
Aniline and other Dyes—solids	17,225	1,026
" " " solutions	6,154	5,382
Inks	2,516	2,933
Steel pens	3,389	1,712
Textile printing	4,630	7,271
Electrotyping and printing	1,052	3,812
Soap	280,803	142,971
Hair-washes	70,640	69,181
Cattle medicines	4,396	3,641
Plant washes, insecticides and sheep dips ..	8,746	8,902
Ether	146,484	87,151
Chloroform	70	1,292
Ethyl chloride and bromide	5,179	4,334
Solid medicinal extracts	44,860	54,902
Alkaloids and fine chemicals	76,693	48,176
Embrocations, liniments and lotions	27,787	33,640
Surgical dressings	11,522	17,042
Capsules and other medicinal appliances ..	4,370	3,315
Disinfectants	6,800	3,857
Collodion	30,106	13,681
Photographic plates and papers, and other photographic purposes	43,017	39,437
Ships' compasses, spirit levels, etc.	2,662	1,830
Other purposes :—		
Dyeing and cleaning operations in laundries and dye works	20,670	21,348
Admiralty dockyards and War Office arsenals and workshops	8,726	4,645
Hospitals, asylums and infirmaries	63,534	64,433
Analytical and scientific purposes in the laboratories of analysts, works chemists, etc.	11,817	9,915
Educational and scientific purposes in colleges and schools	5,516	6,709
Preservation of specimens in museums and hospitals	4,324	4,697
Miscellaneous uses	37,062	23,873
Total	2,897,204	2,660,140

In the current issue of their "Bulletin" the British Chemical and Dyestuffs Traders' Association comment upon the fact that, while the Referee's award removing the duty on the importation of this product was dated August 10, and the Board of Trade notice was dated August 13, the alteration in the list of articles chargeable with duty under Part I. of the Safeguarding of Industries Act, 1921, did not take effect until August 20, this being in accordance with an order by the Board of Trade. A number of importations of formaldehyde appear to have been made between the date of the Referee's award and that on which his decision became effective, and the importers have been called upon to pay the key industry duty of 33½ per cent., which in the case of formaldehyde is a fairly considerable matter. The point at issue seems to be whether the Board of Trade in carrying out their duties under the Safeguarding of Industries Act have power to post-date the award issued by the Referee. The Act in Part I. (5) states: "... and the decision of the Referee shall be final and conclusive, and the list shall be amended so far as is necessary in order to give effect to the decision without prejudice, however, to the validity of anything previously done thereunder." While we do not wish to cause any embarrassment to the Government Department concerned, we think that no other interpretation can be given to the section quoted than that any change in the list of scheduled articles caused by a decision of the Referee should take place on and from the date stated on the Referee's award. We have been looking up the records of past cases, and we notice in the "Board of Trade Journal" of March 30, 1922, in that department's official notice, the following appears:—Safeguarding of Industries Act, awards in arbitrations under Section 1 (5): "In two cases—viz., that of R. lactose and that of cream of tartar, tartaric acid, and citric acid—the decisions are against the Board of Trade, and those substances are accordingly withdrawn from the lists of dutiable articles from March 25, *which is the date of signature of the award.*" Whether the Board of Trade have the power to post-date an award ten days or ten years is certainly a very doubtful point, and their action in the lactose and cream of tartar instances does anything but strengthen any arguments they may put forward. In any case it would be more satisfactory to all concerned if they adopted the same procedure in all these cases, so that the trade might know what to expect.

FRENCH LAVENDER FAIRS.—Two lavender fairs will be held in France on Saturday next, September 1, one at Digne and the other at Apt.

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of British patents can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Pure Sodium Chloride.—Brine or rock salt is treated with a mixture of di-sodium phosphate and sodium carbonate, whereby the calcium and magnesium salts present are precipitated, leaving in solution sodium chloride and sodium sulphate. The latter is removed by precipitation by barium chloride, and the filtrate is then evaporated to dryness. (J. T. Westermann. 199,607.)

Water Softener.—A compound for softening water, particularly for toilet purposes, prepared by mixing 150 kilos. of sodium carbonate and 50 grams of boric acid with 100 litres of water. The resulting mass is powdered, and mixed with 40 kilos. of sodium bicarbonate, 4 kilos. of starch and 2 kilos. of magnesium carbonate. The product may be coloured and perfumed. (F. H. Lecomte. 200,370.)

Cleansing Composition.—Boil 2 lb. caustic soda in three pints cold water. Melt in another vessel 8 lb. fat. Pour soda slowly into fat and stand for two days. Remove fat and mix in 2 lb. whitening, 1 lb. Fuller's earth, 1 lb. Panama wood bark, $1\frac{1}{2}$ pint ammonia, $\frac{1}{2}$ lb. each bicarbonate of soda and bicarbonate of potash, add sufficient water to make a paste, and boil. (E. A. W. Higgins. 201,393.)

Liniment for Animals.—A preparation for keeping away flies and insects from animals, consisting of:—

Oil of turpentine	...	92 per cent.
Oil of lavender	...	4 per cent.
Tincture of iodine	...	2 per cent.
Lysol	...	1 per cent.
Soft soap	...	1 per cent.

(T. Hansen. 199,677.)

FRENCH

Cleansing Soap.—Ordinary soap into which 30 to 40 per cent. of fine sawdust has been incorporated. (P. Villemot & Co. B.F. 555,158.)

Medicine Cup.—A cup intended to facilitate the administration of oily medicaments, possessing two intercommunicating compartments, one of which is provided with a tube, through which the liquid is absorbed. (T. Mattei. B.F. 554,823.)

Soap Compress.—A square piece of spongy tissue impregnated with antiseptic soap and protected on each side by a piece of gauze, the edges of the whole being fastened together. (S. A. des Pansements Brevetés Corbière, P.B.C. B.F. 555,575.)

Hair Wash.—A preparation obtained by boiling:

Water	...	6,000 c.c.
Cloves	...	500 grams
Chamomiles	...	125 grams

until 3,000 c.c. of liquid remains. (C. P. L. Ortegat. B.F. 555,121.)

GERMAN

Cholic Acid Compounds.—Additive compounds of cholic acid can be obtained by heating anhydrous cholic acid with an ester, such as lactic acid ethyl ester, amyl acetate, ethyl urethane, bornyl valerianic ester, etc. (G. H. Boehringer Sohn. D.R.P. 376,470.)

Fur Dye.—Reddish-brown tints may be obtained in furs by using a dye consisting of 2 grams of 1,4-diamino-2-chlorobenzol, 1 gram of solution of ammonia (25 per cent.), and 30 grams of solution of hydrogen peroxide, in 1,000 c.c. (A. G. für Anilin-Fabrikation Berlin-Treptow. D.R.P. 376,625.)

Yohimbine-Papaverine Tartrate.—An aqueous solution containing 1.29 parts of yohimbine, 1.13 parts of papaverine, and 0.56 parts of tartaric acid is evaporated to dryness. The resulting combination of the two alkaloids with tartaric acid is intended for use as a powerful aphrodisiac. (K. Fleischer and O. Hirsch-Tabor. D.R.P. 375,792.)

Root Fillings.—One part of dry casein is mixed with 15 to 20 parts of lactic acid, whereupon the mixture is heated until a clear solution is obtained. On the other hand, one part of dry white of egg is dissolved in 5 to 10 parts of water. The casein-lactic acid solution is now mixed with an equal amount of solution of formaldehyde (40 per cent.), and the same amount of albumin solution is added to this mixture. This process is used for filling roots, the mixed liquids being introduced into the root canal before solidification of the mass takes place. (H. Passow. D.R.P. 373,986.)

Glyoxal Derivatives.—The product resulting from the interaction between acetylene and ozone, which contains about 4 per cent. of glyoxal and 2 per cent. of formic acid, is treated with calcium oxide or sodium bisulphite, yielding the corresponding derivatives. Or, on treating the reaction mixture with hydrocyanic acid, and then with hydrochloric acid, racemic acid is obtained; on reduction it can be converted into glycollic aldehyde, and on further reduction with palladium chloride and blood charcoal it yields glycol. (Dr. A. Wohl and Dr. K. Bräunig. D.R.P. 373,975.)

Soluble Camphor Derivatives.—Salts of dialkylamino-alkylcamphor are readily soluble in water, and exhibit the well-known action of camphor on the heart to a very marked degree. These new bases are obtained by the action of halogen alkyl-dialkylamines on sodium camphor, or on bromo-magnesium camphor. Example: 152 parts of camphor, 1,000 parts of toluol, and 45 parts of sodium amide are heated to boiling for four hours, whereupon 140 parts of chlorethyl-diethylamine, dissolved in toluol, are added, and the mixture boiled for a further period of one hour. The reaction product is shaken up with dilute hydrochloric acid, whereupon the new base is precipitated by the addition of potassium carbonate, and extracted with ether. The hydrochloride of the base is obtained by the action of hydrochloric acid gas, and can be separated out from acetic ether or acetone. It melts at 145° C., and on the addition of carbon dioxide or caustic alkali the base separates out as a colourless oily liquid. (Farbwerke vorm. Meister Lucius & Brüning. D.R.P. 376,348.)

UNITED STATES

Ammonium Chloride.—A process of transforming synthetic ammonia into a salt for use as a fertiliser by employing such ammonia in the ammonia soda process and withdrawing ammonium chloride from the bicarbonate mother liquor by alternately concentrating, removing the sodium chloride separated and cooling to precipitate ammonium chloride. (C. Bosch, E. Dehnelt and C. Kircher. U.S.P. 1,453,060.)

Photographic Film.—The process for producing a water permeable photographic film consisting in providing the film with an insoluble silver compound of very fine grain by treating the film with an aqueous solution of a silver compound intended to enter into reaction with another liquid containing a percentage of halogen superior to the chemically-equivalent percentage of silver in the former solution. (J. E. Brandenberger. U.S.P. 1,452,785.)

Purification of Propionates.—Propionates obtained from acetates and salts of fermentable organic acids can be purified by the action of bacteria. The organisms which may be used in this process are included in the following classes: (1) Those of proteolytic nature, having power to ferment organic salts, of which *Proteus vulgaris* is an example; (2) the acid-destroying organisms which are not proteolytic in nature, but which actively destroy organic salts, the class *Bacterium acidigenes* being an example. (J. M. Sherman and E. O. Whittier. U.S.P. 1,450,392.)

Phosphoric Acid.—A process for the purification of phosphoric acid which consists in evaporating the acid at a temperature below 150° C. to a sp. gr. of 1.85 $\frac{20}{15}$ ° C. or above, then cooling to below 40° C., inoculating with a crystal of phosphoric acid, centrifuging the resulting crystalline mass, melting the separated crystals at a temperature above 40° C. and adding water to bring the sp. gr. to 1.85 $\frac{20}{15}$ ° C. or above, and repeating the inoculating, etc., processes as desired. (W. H. Ross, C. B. Durgin and R. M. Jones. U.S.P. 1,451,786.)

Bankruptcy Reports

Re Annie Florence Smith, trading as Annie Florence Johnston, 3 Railway Terrace, Fitzwilliam, Wakefield, druggist. The first meeting of the creditors was held on August 10 at the Official Receiver's office, Wakefield, when the case, being a summary one, was left in the hands of the Official Receiver. The following are among the creditors: Hirst, Brooke & Hirst, Ltd., £90; Goodall, Backhouse & Co., £15.

Re Charles Frederick Hosking, Marylands Road, Paddington, London, chemist's assistant. The first meeting of creditors was held at the London Bankruptcy Court on August 21. Mr. F. T. Garton, Official Receiver, reported that it appeared from the debtor's statements that for a number of years he carried on business as a druggist in Plymouth under his own name. In 1919 he sold that business and took the Mayflower Hotel, Barbican, putting in £500, of which £200 was borrowed. In May 1921 he sold the hotel, and after paying all the debts, with the exception of one of £40, he was left with less than £10. Nine months later he took an empty shop at 21 Flora Street, Plymouth, and restarted trading as a druggist, obtaining stock on credit. That venture was not successful. In April last he sold the business, fixtures and stock to his son, C. F. Hosking, for £75, and at the same time sold furniture for £25. Removing to London, he bought a small dining-room business at Holloway for £90, but three weeks later sold it for £60. At present he was engaged as a chemist's assistant at a weekly salary. He returned liabilities at £280 and disclosed no assets. Want of capital and bad trade were the reasons given for the failure. The estate was left with the Official Receiver to be wound up.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1923, p. 289.

(From "The Trade-marks Journal," June 27, 1923.)

"**VIGOROSO**" TONIC WINE, etc., on label device, including oxen drawing cart containing barrel; for medicated port wine (3). By E. Young & Co., Ltd., 11 Seel Street, Liverpool. 431,603. (Associated.)

"**MINERAL SPRING**"; for a saline preparation (3). By T. Kerfoot & Co., Ltd., Oldham Road, Bardsley, Lancs. B.418,250.

"**VELKURA**"; for medicinal chemicals (3). By J. Barrington & Sons, Ltd., 202 Great Britain Street, Dublin. 436,129. (Associated.)

"**ABEX**"; for medicine (3). By The Victor Co., 81 Chancery Lane, London, W.C.2. 434,851.

"**CLOCK**", of which the letter "O" is formed by face of clock bearing lettering "W. & S., GREENWICH," ("W. & S.," "C. L." and "C. K." disclaimed); for medicated soap (3). By Wilkie & Soames, Ltd., Tunnel Avenue, East Greenwich, S.E.10. 434,935. (Associated.)

"**WILCO**"; for a herbal medicine (3). By T. Hough (Leigh), Ltd., 7 Lord Street, Leigh, Lancs. 436,055.

"**BANDOR**"; for medicinal chemicals (3), and for perfumery, etc. (48). By Saltrates, Ltd., 22, Euston Buildings, George Street, London, N.W.1. 436,073/074. (Associated.)

"**PARAKYL**"; for a parasite destroying preparation (3). By Wright's Preparations, 67 Wigmore Street, London, W.1. 436,660.

"**PINEOPALM**"; for medicinal chemicals (3), and for goods (47). By A. Finlay, Ltd., Victoria Square, Belfast. 437,056/057. (Associated.)

"**MACKEY'S BOSTON CREAM**," etc., on label device, including thistles and facsimile signature ("Mackay's Boston Cream" disclaimed); for a beverage preparation (42). By J. Mackay & Co., Ltd., 4-12 Canning Street, Edinburgh. 427,775.

"**SUNLEA**"; for food substances (42). By Armour & Co., Ltd., Queen's House, Kingsway, London, W.C.2. 436,824.

DEVICE of two cats supporting shield for soap (47), and for perfumery, etc. (48). By Katz Brothers, Ltd., 1/2 Pepys Street, Seething Lane, London, E.C.3. 434,079/080. (Associated.)

"**CASTRIAN**"; for perfumery, etc. (48). By Taylors' Drug Co., Ltd., 347 Burley Hill, Leeds. 433,456. (Associated.)

"**POUDRE NILDE PARIS**," on round label device, and "THIS BOX CONTAINS POUDRE NILDE WITHOUT SIFTER OR PUFF," on strip label; for face powders (48). By C. Davis, 22 Rue de Longchamp, Neuilly-sur-Seine, Paris. 435,708. (Associated.)

(From "The Trade-marks Journal," July 4, 1923.)

"**SWAN**" on label device, including swan; for water softeners (1). "ROBOR"; for chemicals (1). By Lever Brothers, Ltd., Port Sunlight, Cheshire. 435,131; 436,988. (Associated.)

"**BOKAY**" with bunch of flowers device; for chemicals (1). By Ironside, Ltd., 106 Fenchurch Street, London, E.C.3. 435,621. (Associated.)

"**GLORIA**"; for chemicals (2). By C. Maschwitz, jun., 18 Newhall Hill, Birmingham. 435,525. (Associated.)

CIRCULAR DEVICE OF RADIATING LINES; for medicinal chemicals (3). By Aktiebolaget Pastill, 23 Norra Skeppargatan, Gefle, Sweden. 434,039.

"**ANDY'S TRADE MARK**" with device of hand for liver salts (3). By Andy's, 39 Lord Street, Lower Broughton, Manchester. 434,840.

"**MEGGESON & CO., LTD.**," across device of St. George and the Dragon; for medicinal chemicals (3). By Meggeson & Co., Ltd., Llewellyn Grove, New Church Street, Bermondsey, S.E.16. 435,353.

"**TOBACRYL**," etc., on label device; for a medicinal remedy for the tobacco habit (3). "WUNSNIF KOLDBIF" on outline figure of man; for a medicine for colds, etc. (3). By Roylan York, 3 Cannon Street, London, E.C.4. 436,803/804.

"**SANIPAD**"; for all goods (11). By A. Freeman, 5/7 Scottish Chambers, 91 St. George's Street, Cape Town, S.A. 435,714.

"**DUCO**"; for surgical instruments, etc. (11). By Boots' Pure Drug Co., Ltd., 37 Station Street, Nottingham. 436,039. (Associated.)

"**LIGHTHOUSE BRAND**" under picture of lighthouse; for photographic and ferro-prussiate paper (39). By Norton & Gregory, Ltd., 1 Castle Lane, Buckingham Gate, London, S.W.1. 426,190.

"**CONVERTASE**"; for malt extract for food (42). By W. J. Robson & Co., Ltd., No. 10 Malting, 81 Northgate, Pontefract. 434,604.

"**FEZ**" under picture of same; for goods (47) and for perfumery, etc. (48). By Tyson & Co., Ltd., 6 Blackstock Street, Liverpool. 436,709/710. (Associated.)

"**BEUTIGEN**"; for perfumes, etc. (48). By Bertha J. Rogers, 14 Beverley Road, Anerley, London, S.E.20. 424,362.

"**GIBBS**"; for toilet articles (48). By D. & W. Gibbs, Ltd., High Street, Wapping, London, E.1. 427,154. (Associated.)

"**POUDRE CELLMENE**"; for toilet powder (48). By The Armand Co., 124 Des Moines Street, Des Moines, Iowa, U.S.A. 434,002.

"**DENTEX**"; for perfumery, etc. (48). By W. H. Peak and T. D. Jones, 62 Bryanston Street, Marble Arch, London, W.1. 434,391.

"**BIOZONE**"; for bath salts (48). By Biozone, Ltd., 28 Bishopsgate, London, E.C.2. 435,226. (Associated.)

"**BRUMAR**"; for a dentifrice (48). By W. T. Bruce and L. Marriott, Wolfreton Lodge, Willerby Road, Kirkella, Yorkshire. 436,269.

"**DAINTESSE**"; for perfumery, etc. (48). By T. B. Greenwood, 311 Corn Exchange, Cathedral Street, Manchester. 436,730.

"**VECTE**"; for perfumery, etc. (48). By J. H. E. Burgess, Clarence Road, East Cowes, Isle of Wight. 436,964.

(From "The Trade-marks Journal," July 11, 1923.)

"**RIGOSOL**" and "SOLAQUA," with device of ring encircling the earth; for chemicals (1). By J. S. Craig & Co., Ltd., 85-127 Portman Street, Glasgow. 436,150/151. (Associated.)

"**FLATOLAT**"; for all goods (1). By J. Hall & Sons (Bristol and London), Ltd., 51 Broadmead, Bristol. 434,669. (Associated.)

"**RODINAL**"; for chemicals (1). By Actien-Gesellschaft für Anilin Fabrikation, an der Treptower, Brücke, Berlin, Germany. 437,039.

"**MONOSOL**"; for a photographic developer (1). By W. F. Cooper, The Cooper Laboratory, Rickmansworth Road, Watford. 437,075.

"**WI-TA**"; for all goods (2). By W. Taggart, 787 Crumlin Road, Ballysillan, Belfast. 437,239. (Associated.)

"**PICER**"; for a skin lotion for animals (2). By J. L. K. Kane, Drumreask House, Monaghan, Ireland. 437,345.

Purchasing Drugs for China

By John Cameron, M.P.S.

THE purchasing of chemicals and drugs is a matter of vital importance to the authorities in charge of mission hospitals, dispensaries, scientific institutions and retail chemists' businesses in this country. In an institution like our own, for instance, where we are dealing with somewhere about 6,000 out-patients per month we have to carry a very heavy stock of drugs to enable us to fill all our prescriptions. Besides this, we have a large number of laboratories in our various departments which necessitate our carrying in stock all kinds of fine chemicals for analytical and research purposes. It occurred to the writer that a brief note on the purchasing of chemicals might be of some interest to the readers of the *C. & D.* As it will no doubt be rather difficult for your readers at home to fully appreciate the many difficulties which have to be overcome in securing chemical supplies from abroad, perhaps it would not be out of place here to briefly state these.

1. Foreign chemical markets are thousands of miles away from Peking. The most reliable markets are England, America and Germany.
2. To get quotations from these places means that we have to wait about three and a half months.
3. We use the Mexican currency here, which means that all items priced in sterling or gold dollars in wholesale price lists have to be changed to our currency here before we are able to approximate the cost of the goods delivered to us in China.
4. Transport charges are a very variable quantity.
5. Breakages are very common in orders received from abroad.
6. Insurance claims take about one year before a final settlement is arrived at.
7. There is the exchange factor to be dealt with: sometimes we place an order abroad when the exchange is favourable to us, but discover that before the order has reached the wholesale house the exchange has gone against us.

During the past two years we have received supplies of chemicals and drugs from various countries, viz., England, America, Germany and France. In emergencies, of course, we have had to secure supplies from our nearest market, Shanghai. But it has been our experience that when we were placing a large order it was better to place it with some big wholesale firm abroad and have the goods shipped out to us. Prices invariably are cheaper when we purchase abroad. To prove this assertion, we submit a list of chemicals and pharmaceuticals, showing the current prices in March, 1923, of the various items in Germany, America, England and Shanghai. These items have been taken at random from a big shipment which has just been delivered here from a well-known German house. The order consisted of over two hundred cases, containing seven thousand bottles. There were almost one thousand different items in this shipment. The invoice was priced in sterling and converted to Mexican currency by the agent of the company, who has an office in Peking. There was no special advantage gained by the fall of the mark. This agent accepted all responsibility for the breakages in transit, and only submitted an invoice for the actual chemicals delivered to us in the college. In 1922 we received a large order from a well-known English wholesale house. The breakages on this order worked out at approximately 10 per cent. It has been our experience that on chemical orders received from America there is usually a 6 per cent. breakage. From Germany, on the other hand, in no case has the percentage breakage been more than two. During the past year we have received four orders from Germany. One of these orders was for chemically pure mineral acids, ether C.P., xylol, benzol and such like items. There were over one thousand bottles, mostly 1 lb. size. The breakages in this order amounted to 0.3 per cent.; there was no loss due to volatilisation. This, we think, is a record, and would seem to indicate that German houses have a more efficient way of packing their chemicals for foreign shipment than their competitors in either England or America.

The time which elapses between the placing of the order and the delivery of the goods is a very important

item to us here. We have found that the average time required by English firms is one year, by American firms eight months, and by German firms eight months. This seems an unusually long time to have to wait on delivery of our goods, but on inquiry we have discovered that the shipments have all been detained by the Customs authorities at the various ports in China for approximately two months.

Anæsthetic ether is a chemical which is worthy of note from a purchasing standpoint. In 1921 we were purchasing this chemical from a firm in Shanghai, and we were paying from Mex. \$2.00 to Mex. \$2.40 per lb. We decided to place a standing order abroad in 1922 for this item, and after having quotations from leading firms in England and America we placed the order with an American house, who are still supplying us with a good quality of anæsthetic ether packed in 1 lb. tins. The price of this ether delivered to us here in Peking, including all transport and likin charges, works out at Mex. \$1.30 per lb. The lowest estimate which we received from England was Mex. \$2.50 per lb. German anæsthetic ether at the present time (March, 1923) is Mex. \$2.00 per lb. laid down in Peking. In summing up, our experience would indicate that at the present time the most desirable market in the world for chemicals and pharmaceuticals is the German; English prices are about 20 per cent. higher. American prices are about 15 per cent. higher. No English or American house in North China carries any stock of fine chemicals suitable for use in an analytical laboratory. The problem of breakages is a big one, but this has been solved by the agents of the German firm in Peking.

CHEMICAL	UNIT	ENG- LAND	GER- MANY	U.S.A.	SHANG- HAI
		Mex. \$	Mex. \$	Mex. \$	Mex. \$
1. Acetone extra pure ..	lb.	2.00	1.80	1.85	2.00
2. Collodion U.S.P.	"	2.00	1.40	1.45	2.10
3. Collodion 4% c.p.	"	3.00	1.60	2.30	2.50
4. Bromine c.p.	"	3.50	3.25	4.00	6.00
5. Ethyl chloride 50 gram. tubes ..	"	1.50	1.00	1.00	1.50
6. Carbon Bisulphide U.S.P. VIII.	"	1.40	1.40	1.55	1.85
7. Phosphorus in sticks Ph.G.V.	"	3.20	2.00	3.20	3.50
8. Acid hydrocyanic 2% ..	"	4.00	1.50	2.00	3.10
9. Acid hydrochl. pure 1.16-20% Be.	"	0.85	0.70	0.80	0.95
10. Sodium peroxide ..	Kilo	6.50	6.00	5.54	7.80
11. Ether c.p.	lb.	3.30	2.00	2.20	2.90
12. Alcohol methylic c.p. ..	"	12.00	2.80	2.50	3.10
13. Acid acetic anhydride ..	"	3.00	3.70	4.00	4.15
14. Zinc metal powder (zinc dust) ..	"	1.20	0.90	1.00	1.10
15. Bromine U.S.P. VIII. ..	"	2.80	1.80	4.00	5.50
16. Alcohol methylic ord. ..	"	1.60	1.35	1.30	2.30
17. Tolnol ..	"	1.45	1.30	0.70	1.50
18. Paraldehyde ..	"	1.80	1.80	3.00	4.00
19. Xylol ..	"	1.20	1.10	1.15	2.10
20. Alcohol propylic ..	"	6.50	2.25	6.40	5.00
21. Collodion flex.	"	2.05	1.45	1.15	1.25
22. Acid hydrofluoric 40% ..	"	3.50	3.70	5.25	7.80
23. Ether acetic ..	"	3.60	4.00	3.33	4.80
24. Acid acetic glacial ..	"	1.00	1.40	1.75	2.00
25. Formaldehyde 40% ..	Kilo	2.00	1.75	2.10	2.00
26. Acid nitric extra pure 1.40 ..	"	0.55	0.45	0.50	0.60
27. Acid hydrochlor. reagent fuming ..	"	1.20	0.80	0.81	1.00
28. Benzaldehyde extra pure U.S.P.	"	4.00	3.00	3.50	4.80
29. Benzyl chloride pure ..	"	6.00	4.00	12.00	10.85
30. Diamond in' ..	"	—	20.00	18.72	25.00
31. Amyl acetate, pure ..	"	2.50	3.50	3.85	4.65
32. Potassium sodium carb. c.p.	"	—	1.00	2.35	3.45
33. Acid hydrobromic c.p. ..	"	4.30	2.70	4.00	4.35
34. Liq. ammonia 0.90 ..	"	0.80	0.75	0.73	0.85

The writer of the above article is connected with the department of Pharmacy at the Peking Union Medical College, Peking, China. He trusts that his criticisms will have the effect of wakening up wholesale drug houses in England.

BRITISH TRADE WITH CUBA.—Mr. E. V. B. Brice, British Consul at Santiago de Cuba, who is now on a visit to the United Kingdom, will be pleased to interview firms interested in trade with Cuba, particularly Eastern Cuba, at the Department of Overseas Trade, from August 28 to September 8 inclusive.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbiling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, August 30.

THE Mining Lane produce markets show an improving tendency this week as regards business, and with the holiday period drawing to a close, signs of a brighter outlook for the autumn are evident in some quarters. At the same time, the basic situation is, of course, dominated by the European rates of exchange, and the reparations question. Among the outstanding changes in crude drugs is an advance in opium, due to active buying in the primary markets, and small receipts of new crop from the interior. Balsam tolu and cascara sagrada show a further advance. Higher prices are asked for new Belgian chamomiles owing to bear sellers covering their requirements. Ergot is cheaper to arrive. Menthol remains quiet, and its future is uncertain. Slightly easier rates are asked for Spanish anise and coriander seed. Cumin seed should be cheaper owing to arrivals. Chinese cantharides to arrive have been sold at easier rates. Eucalyptus oil is a rising market. Cod-liver oil has an easy undertone. It is interesting to note that drugs valued at £100,000 have been received from Russia this week. Among industrial chemicals business continues restricted and competition is keen. The chief changes include a reduction in caustic soda, and several of the potassium salts, including carbonate, caustic, and prussiate. Acetone and acetic acid are firmly maintained. Pharmaceutical chemicals show few alterations, prices of a number of items being a matter of negotiation. Citric and tartaric acids are offering at cheaper rates. Barbitone is still tending easier. Aspirin and sodium salicylate are firm, the latter not being too plentiful, as the Continental source of supply is restricted.

Higher	Firmer	Easier	Lower
Balsam tolu	Cocunut oil	Alum	Arsenic
chamomiles	(desicc.)	Anise (Spanish)	Carbolic acid
Tannin leaf	Palm oil	Anise star oil	Citric acid
oil (Cey.)	Petitgrain oil	Bergamot oil	Cream of tartar
Ironella oil	(Para.)	(c.i.f.)	Cresote oil
(Cey.)		Cantharides	Ergot
Opium		Coriander seed	Lead acetate
Peppermint oil		Lemon oil	Mandarin oil
(Amer.)		Linseed oil	Mercury
Rubber	Steadier	Orange oil	Potash carb.
Shellac (futures)		(Sic.)	Potash caustic
		Rape oil	Potash pruss.
		Soda prussiate	Soda caustic
		Turpentine	Tartaric acid
			Toluol
	Acid oils		
	Barbitone		
	Hexamethylene		

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at p.m. on Wednesday:—

Place	Method of Quoting	Par of Exchange	August 22	August 29
Amsterdam	Fl. to £	12.107	11.55½—11.55½	11.56—11.56½
Berlin	M to £	20.43	20.25 millions	32.34 millions
Brussels	Fr. to £	25.22½	102.40—102.60	97.50—97.70
Calcutta	Per rup.	24d.	15½d.—15½d.	16½d.—16½d.
Christiania	Kr. to £	18.159	27.78—27.82	27.90—27.95
Constantinople	Pst. to £	110	830—850	780—800
Hankow	Dr. to £	25.22½	253—263	240—250
Italy	Lire to £	25.22½	105½—105½	105½—105½
London	£ to £	53½d.	2½d.—2½d.	2½d.—2½d.
Lisbon	Pts. to £	25.22½	34.20—34.23	33.75—33.78
Lyons	£ to £	4.86½	4.65½—4.66½	4.66—4.66½
Madrid	£ to £	4.86½	4.55½—4.55½	4.54½—4.54½
Montreal	Fr. to £	25.22½	81.80—81.90	80.10—80.15
New York	£ to £	—	28½d.—28½d.	28½d.—28½d.
Osaka	Per dol.	—	25.18—25.22	25.20—25.22
Switzerland	Fr. to £	25.22½	320,000—330,000	320,000—325,003
Vienna	Kr. to £	24.02	25½d.—25½d.	25½d.—25½d.
Yokohama	Per yen	24.58d.	—	—

Cablegram

NEW YORK, August 29.—Business is fair. Peppermint oil in tins has advanced to \$2.70 per lb. Cascara sagrada is 1c. dearer at 17c. per lb. Balsam tolu has advanced a further 15c. to \$1.75, and belladonna leaves are also higher at 18c. Curaçao aloes has declined to 8c., Mexican sarsaparilla to 28c., and jalap to 30c. per lb. Burdock is cheaper at 19c. Mercury has been reduced to \$62.00 per flask, and formaldehyde to 13½c. per lb.

Crude Drugs, etc.

AGAR AGAR is steady, with Kobe No. 1 offering at 5s. 6d. per lb. on the spot, and 5s. 3d. c.i.f. to arrive.

ANNATTO SEED.—Good bright Madras seed is scarce on spot and firmly held at 1s. 3d. per lb. The Madras and Java crops appear to have been particularly short this season, while the United States has cleared the West Indian supplies. There are no offers to arrive, and as many contracts have been defaulted, there are ready buyers of anything arriving.

ANTIMONY.—Despite firmer American advices, business on this side is very quiet, but the tone keeps steady, spot lots of foreign being held for £25 10s., while shippers ask about £23 5s. c.i.f. Special brands of English stand at £34 10s. to £35 per ton. French is offering in small lines, but does not attract any demand.

BALSAMS.—Tolu is still advancing in the United States, and on the spot good hard bright has been sold at 9s. per lb.; drossy can be had at 7s.; Peru is tending easier at 7s. to 7s. 3d. per lb. for B.P.; Copaiba is steady at 1s. 7d. per lb.

CAMPHOR (REFINED) remains dull of sale, Japanese 2½-lb. slabs offering on the spot at 3s. 6d. per lb., and August-September shipment at 3s. 5d. c.i.f. Chinese crude is 3s. spot, and August-September shipment 2s. 9d. per lb. c.i.f.

CANTHARIDES.—Sales of Chinese have been made at the cheaper rate of 4s. 3d. to 4s. 4d. c.i.f. to arrive. Spot value is from 4s. 9d. to 4s. 10d. per lb.

CARDAMOMS are in steady demand for medium to bold Ceylon-Mysore with sales up to 4s. 3d. per lb. There is little demand for bold, for which 5s. is wanted.

CASCARA SAGRADA.—Bids of 70s. per cwt. c.i.f. for new crop would probably be considered. Spot is nominal at 90s. for three-year-old bark.

CASSIA LIGNEA is slow of sale, whole selected offering at 42s. 6d., and broken at 32s. 6d. per cwt. on the spot.

CHAMOMILES.—Although a larger acreage than usual was planted out with chamomiles in Belgium, the anticipations as to a bumper crop have not proved correct, and the crop is about three weeks late. Acting on the assumption of a large crop, some speculators made bear sales to consumers in July and onwards at from 220s. to 280s. per cwt. They have now been endeavouring to cover their requirements, but find that they can only obtain delivery of a few bales, and that the growers ask from 410s. to 450s. per cwt. and even more for first pickings.

CLOVES.—Zanzibar are steady, with spot sellers at from 1s. 0½d. to 1s. 1d. per lb. as to quality. To arrive, sellers quote August-October at 1s. 0½d., and October-December at 1s. 0¾d. c.i.f. The weekly wharf statistics show 2,631 bales landed and 691 delivered, leaving a stock of 14,859 bales, against 2,670 bales in 1922.

COCOA BUTTER is steady, C.F.R. offering at 1s. 4d. per lb. and other makes at 1s. 3½d. per lb. in not less than one-ton lots.

COCONUT (DESICCATED) is firmer, with halves selling at 37s. 6d. to 38s. 6d. on the spot, and afloat at 37s. 3d. For August-September shipment 38s. to 38s. 6d. per cwt. c.i.f. has been paid, with buyers at the latter price.

COD-LIVER OIL.—London agents quote from 100s. to 105s. per barrel c.i.f. for finest Lofoten medicinal oil according to quantity. Market has an easy undertone, and where the finest quality is not the chief consideration slightly less than the foregoing would be accepted.

ERGOT.—Rather lower quotations have been received from Spain, including one of 1s. 3d. per lb. c.i.f.

GALLS.—Chinese plum-shaped on the spot are quoted at 60s., and ordinary shape at 58s.; to arrive, 56s. c.i.f.

is quoted for plum-shaped, and ordinary have been sold for August-September shipment at 50s. c.i.f.

GUM ACACIA is quiet, with fair half-hard Kordofan sorts offering at 65s. per cwt. and cleaned at 70s.

INSECT FLOWERS.—Genuine Dalmatian are quoted at 250s. per cwt. for open, 260s. for half-closed, and 280s. c. and f., London, for closed.

IPECACUANHA is steady, with Matto Grosso offering at 7s. 6d. per lb., and Minas at 7s. to 7s. 3d.

JALAP has been inquired for; the spot value of low test is about 1s. 3d. per lb.

MANNA.—Large flake is offered by importers at 2s. 10d., small at 1s. 9d., and sorts at 1s. 6d. per lb. on the spot.

MENTHOL remains quiet and a trifle easier on the week, sellers quoting Kobayashi-Suzuki at 39s. per lb., and to arrive 38s. 6d. c.i.f.

MERCURY.—The paucity of orders from home trade buyers is more pronounced, while only very small lots are wanted by users just to keep things going. As regards export trade, the demand is virtually at a standstill, and the tone is certainly weak, which is well in line with our recent remarks suggesting lower prices. Sellers were heard down to £8 15s. per bottle on the spot, while quotations may be called £8 17s. 6d. to £9, less 3 per cent. Quite a fair amount of stock appears to be available here and business could only be encouraged by more attractive terms. Arrivals have been fairly regular lately from Italy and of respectable dimensions.

OPIMUM.—Owing to the reduction in the crop estimates, poor morphine yield, and buying for Germany and Japan, the Turkish market shows a sharp advance, 17s. 6d. per lb. c.i.f. being quoted by cable for 11 per cent. on Wednesday. It is reported that the morphine yield will be only between 10 and 11 per cent. this season, no 12 per cent. being available. In London, owing to the absence of supplies, there appears to be no quotation available in the open market.

CONSTANTINOPLE, August 7.—During the period July 24 to date arrivals were as follows: Druggists', 234 cases; "softs," *mi*; Malatia, 21 cases. The stock amounted to: Druggists' 145; "softs," 51 cases; Malatia, 11 cases. Since our last report of July 24 our market remained quiet up to July 26 and we were hoping to have attained our object, which was to make our purchases at more moderate prices, when seven or eight purchasers suddenly came forward, among whom we believe were two for Japan. Up to to-day there was sold 147 cases of druggists at 1,400 to 1,550 piastres per oke and 16 cases at 1,375 to 1,550 piastres. Actually the market is very firm, owing to the great rise in the English exchange and also because of the small arrivals both here and at Smyrna. This last fact lets us now confirm the forecast made by others that the crop would not exceed 3,000 cases. Although the area of land under cultivation has been large the dryness of the season has considerably restricted production, and where the kilo of opium was expected only half has been obtained.

CONSTANTINOPLE, August 21.—"During the period August 7 to 21, arrivals consisted of 443 cases druggists', 8 cases 'softs' and 32 cases of Malatia, while the stock amounted to 236 cases of druggists', 49 cases of 'softs,' and 11 cases of Malatia. During the past fortnight 130 cases were sold, of which 115 of druggists' fetched 1,400 to 1,800 piastres, 10 of 'softs,' 1,850 to 1,900 piastres, and 5 of Malatia 1,500 to 1,550 piastres per oke. The sudden rise in the exchange rate for English currency induced many druggists to invest their paper money in opium, leading to an advance in price. Further, we are now beginning to realise that the crop was not as large as we had assumed. There were numerous inquiries from tentative buyers, but holders of stocks are strictly maintaining their prices, and in spite of the recent advance in price, the market continues very firm. Up to the present, arrivals here have exceeded the quantities reported during the same period of the past year. On the other hand, only 200 cases were received in Smyrna, against 600 cases in the previous year, and this we regard as the best proof that the crop will yield about 2,500 cases."

PEPPER is quiet, fair black Singapore offering at 4½d. per lb. on the spot; to arrive, November-December shipment is quoted at 3½d. per lb., c.i.f., d.w. Lampong on spot is 4d., and for October-December shipment 3½d. c.i.f. is quoted. Fair Tellicherry is 4½d., and fair Aleppo 4½d. spot. White Muntok has spot sellers at

5½d. to 6d. as to quality. White Singapore is 5½d. per lb., and October-November shipment is quoted at 5½d. c.i.f.

PIMENTO is flat, with spot sellers at 2d. per lb., and to arrive at 17s. 6d. per cwt. c.i.f.

RHAPONTICA ROOT is quoted at 1s. 1d. per lb. on the spot.

RUBBER has further advanced, and 1s. 4d. per lb. has been paid for standard crepe and sheet. The demand for spot and near-at-hand rubber has been particularly good, and in spite of the advance in value holders have not displayed any eagerness to sell other than small quantities. America has been buying on a fairly heavy scale, and the cables from that quarter indicate a better feeling all round. It should be noted that this is the first occasion that New York has been a serious buyer since last April. Deliveries last week were substantial, over 1,000 tons being exported to Russia; 2,103 tons have left the warehouses; arrivals totalled 1,029 tons, showing a decrease of 1,074 tons in the stocks. The London stock now stands at 47,500 tons. Quotations (Wednesday, 5 p.m.): No. 1 standard crepe and ribbed smoked sheet, spot and August, 1s. 4d.; September, 1s. 4½d.; November and October-December, 1s. 4½d.; January-March, 1s. 5d. Balata remains steady with an upward tendency.

SEEDS.—The following spot quotations were current on Wednesday:—Spanish ANISE 85s., and Russian 62s. per cwt. CANARY SEED.—Mazagan, 16s. 9d. to 17s. per cwt.; Larache, 15s. 9d. per cwt. CARAWAY SEED.—Dutch, 85s. per cwt. CORIANDER SEED.—Sound 45s., and wormy 33s. to 37s. 6d. per cwt. CUMIN SEED.—Morocco, 125s. per cwt. DILL SEED, 19s. 6d. to 21s. per cwt. FENNEL SEED.—Indian, 43s. to 45s. HEMP SEED, Manchurian 14s. 6d. per cwt. FENUGREEK SEED.—Morocco, 25s., and Palestine 22s. 6d. per cwt. LINSSEED.—Morocco, 22s. 6d. per cwt. MUSTARD.—English, 30s. to 35s. per cwt. Market for all seeds continues very quiet.

SHELLAC.—Recent landings have been very considerably larger since the cessation of the dock strike, and further good-sized arrivals having taken place, the returns of stocks for the past month will show a marked increase. Deliveries have been proceeding on an improved scale, largely against overdue contracts, but the trade demand is being undoubtedly kept under restraint, due to the much easier statistical conditions. Holders seem more disposed to accept a reduced premium for spot parcels under steadily increasing stocks, and premiums on fine descriptions are not so stiff as they were. The spot market for usual standard orange T.N. quality closes at 270s. to 275s. per cwt.; superfine is 300s. to 365s.; and A.C. cakey, 265s. Futures are dearer, the sales including August at 260s., October at 257s. 6d. to 275s. to 270s., and December at 265s. to 270s. to 267s. 6d.

STARCH PRODUCTS.—Dutch farina is steady at 14s. 9d. per cwt. on the spot, and for July-August shipment 14s. f.o.b. is quoted. Maize starch powder is 15s. 1½d. per cwt. on the spot. Superior Dutch dextrin is 23s., and No. 2 20s. per cwt. Rice starch crystals offer at £40 for English, and at £33 per ton for Continental.

STYRAX.—Ten barrels have arrived from the Piræus.

TAMARINDS.—Black Calcutta offer at 20s. per cwt. c.i.f.

VALERIAN.—Belgian is in plentiful supply and can be had at 45s. per cwt.

VANILLA.—For white label, Tahiti, some holders are quoting 12s. 9d. per lb.

WAX (VEGETABLE).—Japanese is slow of sale at 75s. per cwt. on the spot, and 73s. c.i.f. for August-September shipment.

Essential Oils

BUSINESS is quiet and price changes are unimportant. Ceylon cinnamon leaf oil is scarce and dearer, and citronella also is difficult to find on the spot and continues to advance in price. American peppermint is higher, and Paraguayan petitgrain shows a firmer tendency. Star anise is weakening, and Sicilian oils are cheaper.

ANISE (STAR).—"Red Ship" is dull and tending easier on the spot at 1s. 9d. to 1s. 9½d. per lb.

BERGAMOT on the spot is unchanged at 12s. to 12s. 6d. per lb. for 37 to 39 l.a. The c.i.f. price is cheaper at 11s. 9d.

CAMPHOR.—Japanese white essential is cheaper at 77s. 6d. per cwt.

CASSIA on the spot is quiet at 11s. 6d. per lb. for 80 to 85 per cent. c.a., and 10s. 6d. c.i.f. to arrive.

CINNAMON.—Ceylon leaf is dearer on the spot at 4 $\frac{3}{4}$ d. per oz. There are buyers at 4d. c.i.f.

CITRONELLA.—Ceylon is very scarce on the spot, and for small lots 3s. 10d. per lb. is reported paid. For shipment afloat, 3s. 5 $\frac{1}{2}$ d. to 3s. 6d. c.i.f. is wanted. Business has been done at 3s. c.i.f., and 3s. 0 $\frac{1}{2}$ d. is now quoted. Recent arrivals have been found to be adulterated with alcohol, and have been held up by the Customs. Java has been in better demand; 4s. 1d. would still buy on the spot. September-October shipment is quoted at 3s. 9d. to 3s. 9 $\frac{1}{2}$ d. c.i.f.

EUCALYPTUS.—Importers are selling 70 to 75 per cent. cineol oil for forward delivery at 2s. 2d. per lb., landed.

GERANIUM.—Bourbon is firm on the spot at 29s. 6d. per lb. There are no sellers below 245 fr. c.i.f. prompt shipment from Réunion. Algerian is unchanged at 17s. 6d. to 28s. on the spot.

JUNIPERBERRY.—B.P. is quoted on the spot at 5s. per lb.

LAVENDER.—Recent quotations for French new crop oil, 38 to 40 per cent., October delivery, range from 16s. 6d. to 19s. per lb., delivered as to seller. Spot holders quote from 16s. to 17s. 6d.

LEMON is a shade easier on the spot at from 2s. 8d. to 2s. 10d. per lb. as to seller. The price quoted for shipment is cheaper at 2s. 8d. c.i.f. For December-January shipment 2s. 5d. c.i.f. is quoted.

LEMONGRASS.—Cochin is quiet and unchanged at 2 $\frac{3}{4}$ d. to 2 $\frac{1}{2}$ d. per oz. on the spot; the price quoted to arrive is 2 $\frac{1}{4}$ d. c.i.f.

LIME.—West Indian distilled is unchanged on the spot at 3s. 6d. to 3s. 7d. per lb.; hand-pressed at 7s. to 7s. 6d.

MANDARIN is cheaper on the spot at from 23s. per lb. upwards.

MINT.—Japanese dementholised Kobayashi-Suzuki is steady, with sellers at 7s. 1 $\frac{1}{2}$ d. per lb. on the spot, and 9s. 9d. to 6s. 10 $\frac{1}{2}$ d. c.i.f. to arrive.

ORANGE.—Sicilian sweet is cheaper for prompt shipment at from 11s. to 12s. 4d. per lb. c.i.f. as to brand; on the spot, 11s. 6d. to 12s. 6d. is quoted. Bitter is 10s. to 10s. 9d. c.i.f.

OTTO OF ROSE.—Spot holders of fair Bulgarian quote 5s. to 40s. per English oz.

PATCHOULI.—Penang is unchanged as to quality at 17s. to 29s. per lb.

PEPPERMINT.—American natural tin oil has again advanced, sellers now asking up to 13s. 6d. per lb. One holder has sold at 12s. 9d., at which further sales would be made. The c.i.f. price ranges from 13s. to 13s. 6d. c.i.f. as to brand. There appears to be difficulty in getting the oil in U.S., which may be due, according to some reports, to considerable delay in distilling. This is attributed to adverse climatic conditions already referred to.

PEITIGRAIN.—Paraguayan is dearer on the spot at from 7s. 3d. to 7s. 6d. per lb. Spot stocks have been cleared in some directions at 6s. 9d.

VETIVER.—Bourbon for shipment is quoted at 23s. per lb. c.i.f., which is above present spot prices.

WINTERGREEN (SWEET BIRCH).—American on the spot is obtainable at 11s. per lb. in bottles.

Pharmaceutical Chemicals, etc.

THERE is little of interest worthy of special comment this week. The market has shown little sign of improvement as regards business, the holiday season being in full evidence. Prices keep up very well under the prevailing conditions. Citric and tartaric acids are still unsatisfactory items.

ACETANILIDE continues on the quiet side with quoted prices about 1s. 5d. to 1s. 6d. per lb., according to quantity.

ASPIRIN.—The cheaper offers referred to last week seem to have been cleared, and it is doubtful if anything is on spot below about 2s. 11d. to 3s. 1d. per lb. for good brands according to seller.

BARBITONE is steadier after last week's decline in value and continues to be quoted on a slow market in the region of 18s. per lb.

BENZOIC ACID shows little sign of life: quoted at 2s. 3d. to 2s. 6d. per lb.

BETANAPHTHOL.—Resublimed, on quotation, is at 1s. 11d. per lb. with inquiry small. Benzaldehyde .03 remains at the old figure of 3s. per lb. Benzonaphthol is unchanged on the week at 5s. per lb.

BROMIDES.—The position remains far from satisfactory so far as spot holders are concerned, and prices mentioned are still low and unsteady with buyers at an advantage. Ammonium, about 7d. per lb.; potassium, B.P., crystals and granular, about 6 $\frac{1}{4}$ d. to 6 $\frac{3}{4}$ d. per lb.; sodium, B.P., crystals and granular, about 7d. to 8d. per lb.

CALCIUM LACTATE, although in no great demand, seems fairly steady at about 1s. 9d. per lb.; large quantities might be just a shade less.

CHLORAL HYDRATE.—For duty-paid 4s. per lb. is generally asked, but it is doubtful if this price is being paid.

CITRIC ACID (B.P. CRYSTALS).—Inquiry seems to point to practically no demand during the past week for spot supplies. Quoted prices are still in the region of 1s. 6d. per lb., less 5 per cent., but any sales made would very probably be well under this level.

COCAINE is firm and in fair demand, the average price of hydrochloride remaining at 15s. 9d. per oz.

COUMARIN is quoted at from 17s. 6d. to 18s. per lb.

CREOSOTE.—B.P. holds on spot at last week's better rates of 2s. 5d. to 2s. 6d. per lb. Market quiet.

CREOSOTE CARBONATE remains dull with quoted rates unchanged at 8s. to 8s. 3d. per lb.

GLYCERIN.—Dealers quote B.P. s.g. 1.260, in cases at 88s. 6d. and 2 $\frac{1}{2}$ -cwt. drums at 85s. per cwt.

GUAIACOL CARBONATE is slow of sale, and the quoted rates are easy at 8s. 3d. per lb.

HEXAMINE.—Spot offers in some quarters keep below the market quotation of 3s. 9d. per lb.; business has been poor. German makers quote 4s. per lb.

HYDROQUINONE has not been very active over the week. Spot holders' prices seem unsteady in the region of 3s. 3d. to 3s. 6d. per lb.

METHYL SALICYLATE is fairly steady with the quoted rate at 2s. 5d. to 2s. 6d. per lb.

METHYL SULFONAL is seldom inquired for; dealers' prices are at about 14s. 6d. to 15s. per lb.

MUSK XYLOL is offered at from 10s. to 11s. per lb.

PARAFORMALDEHYDE continues rather weak at about 3s. 6d. per lb.

PARALDEHYDE.—The average quotation is about 1s. 6d. per lb. in small lots, and in cases 1s. 4 $\frac{1}{2}$ d. is quoted. Business has been poor.

PHENACETIN has been dull, and the quoted rate of about 6s. per lb. is not firm.

PHENAZONE continues to be mentioned up to 7s. 3d. to 7s. 6d. per lb. by dealers, but the little business passing would be at a lower level—say, 7s.

PHENOLPHTHALEIN is quoted on spot at about 6s. 6d. per lb., and at this price the market seems easy and likely to move to a lower level.

POTASSIUM PERMANGANATE holds up well with a fair volume of business at near the quoted rate of 10d. per lb. for B.P. crystals in drums.

RESORCIN is unchanged on the week at 5s. 3d. to 6s. 6d. per lb., with the market quiet.

SALICYLIC ACID, B.P.—The better prices mentioned last week still obtain, and the market seems steady as quoted at 2s. 2d. to 2s. 4d. per lb.

SALOL.—Spot offers are being made at 2s. 8d. per lb. and slightly less for quantities, but for finest quality up to 3s. 1d. has been paid.

SILVER NITRATE.—The price of crystals on August 29 was based on a metal price of 30 $\frac{1}{2}$ d. per oz. as follows: In quantities of 50 oz., 1s. 11 $\frac{1}{2}$ d. per oz.; 100 oz., 1s. 11 $\frac{1}{2}$ d.; 250 oz., 1s. 10 $\frac{3}{4}$ d.; 500 oz., 1s. 10 $\frac{1}{4}$ d.; 1,000 oz., 1s. 9 $\frac{1}{2}$ d.

SODIUM BENZOATE shows no life; quotations are still at 2s. 6d. per lb.

SODIUM DIETHYLBARBITURATE is seldom called for; quoted at about 18s. 6d. per lb.

SODIUM SALICYLATE.—The spot position is very healthy and there is no sign of any fall in values; the outlook is rather the reverse, and there is a fair inquiry. German makers appear to be temporarily off the market. Powder, 2s. 4d. to 2s. 5d.; crystals, 2s. 7d. to 2s. 8d. per lb.

SULPHONAL is level on the week at 14s. to 14s. 6d. per lb. for small lots, with the market dull.

TARTARIC ACID, B.P.—Spot business during the past week has been very light indeed. Supplies seem plentiful. The quoted rate is at 1s. 2d. per lb., less 5 per cent., with any sales well under this level.

TERPIN HYDRATE keeps quite steady on a dull market as quoted at 1s. 8d. to 1s. 9d. per lb.

Industrial Chemicals, etc.

London, August 29.

THE British makers of caustic soda have notified reductions in their prices for home trade. Dealers in potash salts have made further cuts in prices. Lead acetates are also cheaper. Business is still restricted in volume, and prices are generally cut below the market quotation.

ACETIC ACID is one of the best features with the demand sustained and supplies still limited; prices are firmly maintained: 80 per cent. technical, £74; 80 per cent. pure, £51; 98 per cent. glacial, £60 in casks and £73 in glass demijohns, ex wharf London.

ACETONE, as we have previously reported, is likely to move to still higher values, on account of spot shortage and higher prices that will have to be paid for fresh importations. British Government specification is £125 to £127 per ton, in drums.

ALUM is now offered by dealers at the quoted rate of £10 per ton, in casks, and what few sales that have been made have been at cut prices.

AMMONIA (ANHYDROUS) is of little interest, dealers quoting in the region of 1s. 5d. per lb. for 99.95 per cent., which is easy.

ARSENIC.—There was rather a sharp fall in the latter part of last week in the price of white Cornish powder, of which there has been a little more on offer for delivery within September on the basis of £63 per ton delivered by producers f.o.r. This is about equal to £65 delivered London. Demand is described as bad, and it looks as though the long-deferred hopes on the part of buyers to be able to secure substantial concessions are being fulfilled by degrees. America is reported as attempting to resell on this side, while American reports state that business has been done down to about 9½c. per lb. Offers from Japan have come to hand at £52 to £53 c.i.f. U.K. Grecian is quite nominal, no actual offers being made just yet.

BARIUM CHLORIDE is unchanged with dealers offering imported at about £15 per ton for 98 to 100 per cent.

COPPER SULPHATE.—It is as yet too soon to expect any important revival of demand from the Continent against next season's requirements, and there is some talk of very keen competition as likely to be experienced on the part of Italian makers later. In the meantime general business has remained slow, and there seems no difficulty in placing orders in dealers' hands at around £25 10s. to £26 per ton f.o.b. for casks on export account, although certain makers are asking £26 10s.

CREAM OF TARTAR is quoted at about 90s. per cwt., less 2½ per cent. for B.P. quality, and in some quarters 2s. less is reported.

EPSOM SALT.—Commercial quality is seldom inquired for: dealers are offering at about £5 per ton, in bags, on spot.

FORMALDEHYDE.—Our comments of last week still obtain. Spot prices are at about £95 per ton, while offers for forward delivery are at about £75 per ton c.i.f. for 40 per cent. volume in casks and £76 c.i.f. in carboys.

IODINE.—We notice the arrival of Chilean iodine valued at £38.362.

LEAD ACETATE has been reduced in price by dealers,

who are offering brown at about £40 and white at about £41 per ton, with little business doing.

LITHARGE is steady but in no great demand as offered by importers at about £35 10s. to £36 per ton.

LITHOPONE is a good market with 30 per cent. Continental red seal fully maintained at about £22 to £22 10s. per ton.

POTASH CAUSTIC.—Importers have made a big reduction in their quoted rate, now offering 88 to 92 per cent. solid in drums at £30 to £31 per ton. Demand is still far from brisk.

POTASSIUM CARBONATE has moved down to a lower level for all grades, and the market now seems steadier, although there is not much doing; 90 to 92 per cent., £26 10s. to £27; 96 to 98 per cent., £30 to £31 10s. per ton.

POTASSIUM CHLORATE is steady at level rates of about 3d. per lb., but dealers are finding little business.

POTASSIUM PERMANGANATE is holding quite well at about 9½d. per lb. for commercial quality with business moderate.

POTASSIUM PRUSSATE has gone still lower in price with dealers now willing to sell ton lots at about 1s. 1d. per lb. for yellow.

SODA CAUSTIC.—British makers have made big reductions in their prices to home consumers on contract; 70 to 72 per cent., £16 17s. 6d. per ton, in drums; 76 to 77 per cent., £18 7s. 6d. per ton, carriage paid to destination. Their prices for export vary as to destination. Dealers' prices are so far unchanged.

SODIUM ACETATE continues to be offered at about £25 10s. per ton in small lots, which are moving only slowly.

SODIUM BICARBONATE.—British makers' prices are steady at £10 10s. per ton, in bags, carriage paid. Dealers are offering at competitive rates.

SODIUM BICHROMATE for home trade only is unchanged at 4½d. per lb. Makers' price for export is a shade dearer.

SODIUM CHLORATE is at about 2½d. per lb. with business slow.

SODIUM HYPOSULPHITE is keeping fairly steady with pea crystals in one-cwt. kegs offered by dealers at about £15 per ton. Commercial quality in casks is quoted in the region of £9 5s. per ton.

SODIUM CARBONATE (washing crystals) from British makers are unchanged at £5 5s. per ton, in bags, carriage paid to destination, for home trade only.

SODIUM PRUSSATE is again a shade down with dealers offering at about 6d. per lb. The market is distinctly quiet.

SODIUM SULPHIDE.—Dealers' offerings show no change in values, but the market is not very steady, and business is slow; 60 to 62 per cent. solid, £14 per ton, and broken, about £15 per ton; 60 to 65 per cent. concentrated, in casks, £14 10s. per ton.

SULPHUR.—There has been a steady demand, and terms are unchanged with Sicilian flowers varying from £8 to £8 5s. and roll from £7 10s. to £8 5s. c.i.f. U.K.; while American crude stands at £5 5s. to £5 7s. 6d. a ton free on rail.

ZINC PRODUCTS.—The considerable setback in the price of metallic zinc tended to arouse attention, but the market in the allied products has not been really affected so far. Zinc oxide has been retained at about last week's rates with a steady home and export demand. Zinc dust is firm but in quiet demand, high grades varying from £50 to £45, and the lower descriptions are worth £40 a ton. Zinc ashes are about £11 10s. to £12, based on 70 per cent. free on rail.

COAL-TAR PRODUCTS, ETC.—Some alterations of importance have taken place during the week, which has been one of moderate business only. Carbo-lic-acid crystals and cresote oil are both cheaper. Toluol has reverted back to its old level. Pitch is not in demand at the moment. ANILINE OIL AND SALT continue to be quoted at from 9d. to 10d. per lb., packages free, with inquiry only occasional. BETANAPHTHOL is unchanged at 1s. 1d. to 1s. 2d. per lb., but sales are few. PITCH, in London, is quoted unchanged at 140s. per ton with business fallen off temporarily. Inquiry

for next season should come along. Pure METHYL ALCOHOL, £100 per ton, ex wharf London; this article keeps very steady at this level. CARBOLIC ACID crystals are now offering f.o.b. at 1s. 1½d. per lb. in large bulk packing, and there is still only small business about. CREOSOTE OIL has moved in buyers' favour with dealers offering at about 9½d. per gallon f.o.b. CRESYLIC ACID remains at level figure on the week with the market full: 1s. 5d. to 2s. 4d. per gallon, according to quality. PYRIDIN is very firm with spot supplies almost cleared; quoted at 20s. per gallon. HEXAMETHYLENE, which weakened last week, seems steadier and holds at 3s. 9d. per gallon on a quiet market. DISINFECTANTS continue to be mentioned at 3s. 9d. per gallon, barrels free. NAPHTHALENE seems healthy at about £20 per ton; crude, £7 to £13; crystals, £23; powder, £17; balls, £24; tablets, £28; candles, 28 per ton, packages free. TOLUOL has moved back to its former levels of 1s. 8d. to 1s. 9d. per gallon, f.o.r. makers' works, in buyers' packages.

Fixed Oils, etc.

DURING the week, although there has been nothing in the way of an improvement in the volume of business transacted, prices have not declined to such an extent as reported in recent weeks. In some directions the outlook is perhaps rather more promising. ACID OILS: A slight recovery in values is recorded in some kinds and the market seems a little steadier. Coconut and palm kernel, 35s. 6d.; groundnut, about 35s.; soya, about 35s. 6d., all spot. CASTOR: No further change in ex mills. Hull prices, is recorded. Pharmaceutical, 56s.; first pressings, 51s.; second pressings, 50s., all spot, in not less than one-ton lots. COCONUT: This market is perhaps a little steadier and prices show up about level on the week. Deodorised, 47s., spot; Ceylon, 41s. 6d., c.i.f.; Cochin, 50s., c.i.f. COTTONSEED: Prices show but little alteration; business, however, remains dull. Deodorised, 46s.; common edible, 43s.; soap-making, 40s.; crude, 36s., all spot. GROUNDNUT: Deodorised is steady but slow in moving off on spot at 51s.; crude Oriental is nominal at 46s., c.i.f. LINSEED (raw, naked): So far this week the market has been irregular on quotations, with the tendency slightly favouring easier rates for spot and near positions. Business has been restricted. On spot, about 40s.; September to December, about 38s. 6d.; January to April, 35s. 1½d.; Hull, on spot, 39s.; September to December, 36s. 9d.; January to April, 34s. 6d.; boiled linseed oil, on spot, about 42s. 6d. PALM KERNEL: Rates are varying with the market unsteady. Deodorised, about 42s. 6d.; crude, about 38s., all spot. PALM: This week has seen an improvement, both as regards business and prices obtained; the market closes much steadier. Lagos, 35s.; softs, 34s. 6d.; mediums, 35s.; hards, 35s.; bleached, 37s. 6d., all spot. RAPE: This market remains dull, with prices a shade easier. Refined, 42s. 6d.; crude, 39s. 6d., all spot. SOYA: No improvement in demand is reported and prices are level on the week. Deodorised, 40s. 6d.; crude, about 35s. TURPENTINE (AMERICAN): Easier rates are now mentioned, and with business very quiet and the market irregular the position is rather unsteady at the close. On spot, about 71s.; September to December, 71s. 6d.; January to April, 73s. 3d. Total stocks in London are returned at 5,750 barrels of American spirit and 24 of French. It is understood that there are between 3,000 and 4,000 barrels American lying in the river waiting to be discharged. WOOD: Hankow is inactive at 95s. per cwt., in barrels, on the spot.

ANIMAL AND FISH OILS, TALLOW, ETC.—Despite the slowness of business the tallow market keeps up very steady, with no sign of a break. Fish oils remain almost neglected. Bone grease and premier jus show an improvement. BONE GREASE: After the steadier market reported last week there has been a slight advance in quoted rates and the market has improved. Pale water, 34s.; brown water, 35s.; benzine, 32s., all spot. NEATS FOOT OIL has not fallen any further, and continues to be offered for shipment at about 4s. 3d. per gallon, c.i.f., according to acidity. LARD OILS: Last week's easier rates continue to be quoted, with business slow. American E.W.S., 1 per cent., 73s. 6d.; 2/3 per cent., 68s.; English, 3 per cent., 62s., London. FISH OILS: Inquiry for these products still hangs fire, and the market generally is far from being healthy. Coast cod, on spot, about 32s.; brown whale, spot, about 30s.; dark whale, spot, 28s.; Japanese, in cases, 32s., c.i.f. TALLOW (AUSTRALIAN): The recent auctions have been characterised by two features. Firstly, the steadiness of sellers in holding up to their prices, and secondly, the restrictive buying. Shipments from the Colonies during July amounted to only 1,300 tons, against 6,400 tons for the same period last year. So far,

shipments this year are 9,000 tons under that for the same time last year. Closing prices: Fine mutton, 42s. 6d.; sweet beef, 41s. 6d.; good mixed, 39s. 6d.; inferiors, about 36s. 6d. SOUTH AMERICAN TALLOW: The c.i.f. quotations are now: First beefs, 37s. 6d., and seconds at 36s., with very little interest shown. OLEO OIL, on c.i.f. quotations, has advanced to 65s. 3d. OLEO STEARIN: South American No. 1 is up to 52s., and No. 2 to 50s., all c.i.f. PREMIER JUS: Activity is recorded here, although most of the business appears to be for smallish lots. South American extra beef, 43s. 6d.; Australian mutton, 42s. 6d.; South American mutton, 42s. 6d., all c.i.f.

French Cream of Tartar

THE wine districts of Southern and South-Western France and Algeria are the largest sources of supply of cream of tartar in the world. It is estimated that Southern France and North Africa produce on an average 10,000 tons of argol per annum. Argol is the crystal which forms on the sides of wine casks, the precipitation being about 1 millimetre (less than four one-hundredths of an inch) per annum. These crystals contain 75 per cent. of cream of tartar. Sometimes the scraping of the casks is deferred until two or three years' precipitation has accumulated. In years when the price of wine is low the growers scrape their casks in order to supplement their income by the sale of the argol and accordingly in such years as much as 12,000 tons may be offered; in years when the price of wine is such that growers do not feel the need of funds, they are apt to leave their casks unscraped and the offering of argol may be as low as 8,000 tons. The higher the alcoholic content of wine the lower is the precipitation of argol; so that the ordinary red wines with nine degrees of alcohol give more tartar than the high-grade wines with 12 to 20 degrees of alcohol. Of the average figure of 10,000 tons it is estimated that some 4,000 tons find their way to two large American firms whose importing headquarters are at New York City. Of the remaining 6,000 tons some 1,200 go to independent buyers in the United States, 2,000 tons come to England, 2,000 tons are used in France, and 300 tons go to Germany. Many of the largest American baking-powder companies do not buy cream of tartar, as they manufacture alum powders. Even the oldest American baking-powder companies are now adding tartaric acid to their formulas to replace a part of the cream of tartar formerly used. The English baking-powder companies employ a higher proportion of tartaric acid than has been used in the United States until recently. According to a report by the United States Consul at Marseilles, France has 13 cream of tartar factories, located chiefly in Marseilles, Montpellier, Beziers, Aubais, St. Thibéry, and Bordeaux. Prior to the war these factories exported something like 6,000 tons of cream of tartar per annum, but this figure has now shrunk to approximately 2,000 tons. The sales are made largely in Australia, Canada, England, and Japan. In addition to the argol production there are available in the South of France and Algeria each year some 15,000 tons of wine lees taken from the bottom of wine casks, containing from 18 to 20 per cent. of cream of tartar. About 3,000 tons of these have been worked up in France, but an additional 4,000 tons are now to be used in a factory which has just been erected at Montpellier. About 2,000 tons of wine lees are also exported to Germany and the remainder discarded.

Litre v. Gallon

THE Canadian Department of Health has issued an important Order. After drawing attention to the fact that olive oil imported into Canada is put up and marked as containing one gallon or fractions thereof, and that such marking refers to the wine gallon, which is approximately five-sixths of the imperial gallon and is illegal in Canada, the Order lays down that all such goods shall be refused entry into Canada unless marked (a) In fluid measure (128 oz., 64 oz., 32 oz.), or (b) In litres or fractions thereof, or (c) As five-sixths gallon, multiples or fractions thereof. The desirability of substituting the litre for the two conflicting gallons is therefore once again shown, and as the litre is legal in most countries, and is the only legal measure of capacity in most of them, the effect of this Order may be that all containers will be marked in litres or fractions thereof.

An arrival of unrated drugs from Russia, valued at £100,000 and consigned to Arcos, Ltd., is reported in the London Customs Bill of Entry of August 28.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Photographing Clouds

SIR,—During a week in September amateur photographers are invited to assist in the collection of a series of cloud photographs (*C. & D.*, August 25, p. 307). This, I think, will be found not quite so easy as it looks. Very few amateurs (in my experience of over forty years) and very few professionals ever trouble to take cloud negatives, and I suggest that anyone anxious to assist will find it useful, as saving time and money, to make some trial exposures. Orthochromatic plates, preferably with a light colour (yellow) screen, are suggested. The former, in any case, may be used. Medium stopping down of the lens and rapid exposures are required, and metol or M.Q. is suitable for development. Cloud negatives should be full of detail—soft gradations and not over-dense; in short, what is known as a quick printer. Negatives showing a small amount of landscape provide good practice, providing a certain contrast; and one develops, of course, for the cloud part only. Apart from any public benefit, the experience will be useful, and no doubt improve the general technique.—Yours, etc.,

MON VIEUX (29/8).

The Value of Prescription-books

SIR,—Like "Naretev" (*C. & D.*, August 25, p. 314), I should say that old prescription-books are of no use to anyone except their original owner. I well remember that close to the pharmacy in which I obtained my first job as assistant after apprenticeship there was a well-known firm which, owing to alterations in the property, closed their pharmacy, and the prescription-books were offered to my employer. One of the arguments used in favour of a long price was that the books dated back, I believe, to 1805, upon which the "boss" ran downstairs and reappeared with one book dated 1790 or thereabouts, to the complete amazement of the sellers. Eventually these books were sold to another pharmacist in business about twenty minutes' walk away, and it was rumoured that the price paid ran into three figures; I should very much doubt if he got his money back.—Yours, etc.,

EX LIBRIS (27/8).

Insurance Dispensing Difficulties

SIR,—Your review of the difficulties under which chemists labour when faced with irregular prescriptions (*C. & D.*, August 25, p. 303) is a comprehensive statement of the case, but I cannot agree with the suggestion that such prescriptions should be dispensed first and the prescriber asked to adjust them later. Where one is dispensing for a considerable number of doctors it would almost entail a special messenger to go round with the forms to be corrected. Further than this, medical men are not pleased to have their sins of omission pointed out to them, especially by a common chemist, and are apt to be very curt to the person interviewing them, so that personally I have, much to my regret, been compelled to adopt the literal acceptance of the rule that irregular prescriptions should be returned to the practitioner. Another point which deserves attention is the growing practice on the part of doctors of omitting the directions, especially with liniments, ointments, etc., when the pharmacist has again to fill the breach, as the customer requires a long explanation, with the added risk that on the next visit to the doctor the chemist's advice will be condemned as "all wrong." "Town Pump" (*C. & D.*, August 25, p. 314) is certainly on the sunny side of the wall at present, but I cannot think that in ordinary cases the law of averages brings the chemist right in the end. Take, for example, the drug requiring a suspending agent (not ordered and not paid for); take the orders for drugs not in stock (no postages or out-of-pocket expenses paid

for); take the case of the doctor who orders awful concoctions, which one has to experiment with and perhaps waste a bottle or two before turning them out decently. All of these things must cut a big hole into the fivepence before the law of averages gets a chance. If only there would be some unanimity among panel pharmacists I should move for better terms or wholesale resignation to-morrow.—Yours truly,

AVERAGED OUT (27/8).

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics.

Appreciation

Enclosed P.O. . . . for ensuing year for *C. & D.* This is one of my best investments.—R. McD. (24/8).

Unprofitable Patents

Why do not chemists organise and unitedly demand a living profit on—, etc.? If it is a case for the R.P.U. and C.D.A., let them do the organisation; but it must be thorough and unanimous. These lines do not pay errand boys' wages. I can afford to do without them. We all can. Lets!—Ph.C. (14/8).

Insurance Prescriptions containing "Dangerous" Drugs

Referring to a reply to a correspondent in the Legal Queries section of our issue of August 13, to the effect that prescriptions containing "dangerous" drugs need not be retained by the pharmacist, *T. P.* (20/8) reminds us that the Ministry of Health requires that all D.D.A. Insurance prescriptions shall be retained by the Pricing Bureau for a period of two years, arranged in such a way that they shall be available for inspection at any time if required.

Stability of Adrenalin Combinations

For some years I made considerable quantities of a cocaine solution containing adrenalin and Listerine, and was on occasions troubled by discoloration. A solution of this kind for local anaesthesia requires to err on the side of simplicity. I should cut down the Listerine to mxxx . Minute quantities of chloretone, thymol, phenol, etc., may be added, and, finally, acid. sulphuros. miv , to the ounce safeguards against discoloration. My solution contained sodii chlor. and was made up with aq. dest. in preference to the normal saline solution; and as it was used daily for years in dental operations with great success your correspondent may safely try this.—R. D. S. (28/8).

Bulga Root

Writing from New Zealand regarding an inquiry for "bulga root," a correspondent states: I can only identify this with an organism called "Bulgarian Bud" (and miscellaneous variations of this name), which has had a great run in N.Z. during the last two years or more. The "bud" is the latest form of the sour-milk craze, and is a culture of *Bacillus acidi lactici*, or very probably a symbiotic colony involving this organism. It forms a white spongy mass which grows on the top of milk, souring it. The fermentation products seem different from those of ordinary sour milk, but lactic acid undoubtedly predominates. Like all such cultures, the bud is killed by the products of its own action. The usual *modus operandi* is to let it act for twenty-four hours on the milk, then to rinse the organism in water and put it into another lot of milk. The milk is taken, and although not the panacea that many people suppose, it is certainly of great value in many cases. The only method of propagation, so far as I know, is to cut a piece off a colony and begin a fresh one with it. Contact with any metal, even cutting with a knife, is said to be fatal to the culture. Many enterprising pharmacists keep a colony growing and sell pieces off it, and as it grows rapidly this is quite a good proposition. The usual price is 2s. 6d. for a piece about an inch across. As the milk has to be changed and the colony washed daily it could hardly become a stable article of ordinary commerce.

Legal Queries

Sentobalm (24/8).—The mention of rheumatism and other ailments on the label of a preparation, the formula of which is not disclosed, renders the preparation liable for medicine-stamp duty.

In Doubt (28/8).—(1) A mixture containing $\frac{1}{10}$ gr. of opium in 3ss. is outside the Dangerous Drugs Act, the *C. & D.* safety limit being $\frac{1}{2}$ gr. per oz. (2) See reply "J. M. B." in this issue.

W. (27/8).—For income-line under National Health Insurance Unemployment Insurance schemes see reply to "P." in our issue of August 25 (p. 315), or *C. & D.* July, 1923, pp. 269 and 276.

J. M. B. (18/6).—Although exempted from the restrictions of the Dangerous Drugs Acts, the sale of ung. gallæ opio must be made under the conditions of Part I. of the Poisons schedule of the Pharmacy Act.

H. C. (25/8) and W. M. E. (27/8).—See reply to "H. P." in this issue. It should also be borne in mind that the Pharmacy Act, 1868, and the Poisons and Pharmacy Act, 1908, have not been repealed.

R. C. P. (20/7).—In our opinion a label giving several addresses used on a statutory poison is not sufficient under the Pharmacy Act where the object is to be able to trace promptly the origin of the poison.

H. F. & Co. (16/6).—QUININE WINE may be sold by chemists without a licence if it conforms to the standard of the British Pharmacopœia, and is labelled with the decimal dose. Unqualified traders require a sweets licence for the sale of the wine.

H. M. R. (14/6).—The regulation under the Dangerous Drugs Act requiring the medical practitioner to sign his name was amended on March 10, so that now on both private prescriptions or Insurance prescriptions the doctor's "usual signature" will suffice.

R. R. L. (23/7).—Proprietary rights are implied in the use of the trade-mark name for the cooling and aperient powders. This, in conjunction with the use in the direction of the words "soothing" and "remedy," would, we think, involve liability to medicine-stamp duty.

A. C. M. (6/8).—Samples of proprietary articles may be given away without bearing medicine stamps. If, however, the public are invited to send payment for the same, the Board of Customs and Excise hold, we think, that a sale, as the sample has cost the customer something.

W. M. (14/6).—The word "salve" in conjunction with the name of a part of the human body is a dutiable title under the medicine stamp acts. The Board of Customs and Excise regard the verb "salve" as meaning "to make well." The matter was explained in the *C. & D.*, January 13, p. 57.

E. D. O. (4/8).—The formula containing pulv. ipecac. gr. xi. in 100 on absolute weight is well below the Dangerous Drugs Act limit, and the prescription may be dispensed without any of the formalities laid down by the Regulations made under the Acts. An entry must be made in the prescription-book kept in conformity with the Pharmacy Act, 1868.

J. J. P. (22/8), whose lease has just expired, has been offered a further lease, which the landlord's solicitor is drawing up, for a term of twelve years. Should "J. J. P.," or his landlord, pay the solicitor's charges? It is customary for the landlord's solicitor to prepare the lease at the expense of the tenant; consequently "J. J. P." must pay the costs.]

A. G. Dest. (13/8), who buys distilled water for disinfecting purposes, and has numerous inquiries from customers as to whether it can be bought for filling atomizers, etc., wishes to know if he can legally sell it without having to pay duty on it. [He can. It is only where a still is kept that any question of duty (excise) would arise in such a case.]

T. H. P. (16/6).—The text of the Dangerous Drugs and Poisons (Amendment) Act was printed in the *C. & D.*, June 2, p. 764, together with the official explanation. Editorial articles in the same issue and in the numbers for June 9 and 16 further explained the changes brought about by the Act. These alterations are embodied in the new edition of the *C. & D.* Poisons Card No. 4, which is now on sale.

W. & Co. (9/8).—Under the Dangerous Drugs and Poisons (Amendment) Act it is necessary for all wholesalers to receive a signed order for Part I. poisons. If these are ordered by 'phone a confirmatory order should be obtained within 24 hours. We have now ready a pamphlet of the galenicals and chemicals included in Part I. of the schedule for the use of wholesale houses and travellers.

Lex (15/8) intends to sublet the upper portion of his premises to a married woman, who carries on business as a costumière. She is living with her husband, and "Lex" asks whether it is necessary for the husband to sign the agreement in order to signify his consent. [An agreement entered into with the woman alone is valid; but it would be binding upon her only. If "Lex" can induce the husband to allow himself to be joined as a party to the agreement, both he and his wife would be liable for payment of the rent and performance of the terms.]

H. L. R. (7/8).—The Legal Query you mention refers to a chemist in retail business using the alternative method sanctioned by the Dangerous Drugs Act Regulations of keeping his Dangerous Drugs Act Register. Regulation 9 states that a person lawfully keeping open shop, etc.—may, in lieu of keeping the register required by this regulation of drugs sold or supplied by him, enter separately for each of the drugs in a book to be kept for the purpose, references under the appropriate dates to the entries in the 'Poisons book' or 'Prescription book,' etc. The Home Office officials have no power to alter this method unless a new regulation is issued.

W. E. W. (22/8).—DANGEROUS DRUGS ACT, 1920.—Certified midwives who have, in accordance with the provisions of the Midwives Act, 1902, notified to the local supervising authority their intention to practise, have "authority to be in possession of and to administer preparations containing opium so far as is necessary for the practice of their profession or employment in such capacity, subject to the condition that they shall forthwith enter in a book to be kept for the sole purpose particulars of all supplies obtained, including the date, quantity, and name and address of person from whom obtained." (*C. & D.*, II., 1921, p. 286.)

Tom Thumb (7/8) kindly calls our attention to an irregularity in the method in which the reply to "Puzzled" (*C. & D.*, August 4, p. 212) is given, and sends the method which he thinks should have been followed. In fact, the result we arrived at was right, although the way we got it was irregular, and would in some cases have led to error. "Tom Thumb's" figures, however, are inaccurate. The reply to "Puzzled" should be: Income £240, from which earned income allowance of £24 and personal allowance of £135 have to be deducted. This leaves £81, on which the tax at 2s. 3d. equals £9 2s. 3d. From this has to be deducted the tax at 2s. 3d. on £38 15s., the insurance premium, which is £4 7s. 2d., leaving £4 15s. 1d. net tax payable. "Tom Thumb" also asks what is his own liability on the following figures: His income is £314 1s. 5d. after, he says, deducting the interest on £250 borrowed by him at 7 per cent.—that is, £17 10s. [It is not clear why he should deduct this sum paid for interest, but assuming his income to be £314 1s. 5d., and premiums £41 10s., we get earned income allowance £31 8s., personal allowance £135, in all £166 8s., leaving taxable income £147 13s., on which the tax at 2s. 3d. in the £ is £16 13s. From this has to be deducted the tax at 2s. 3d. on the £41 10s., which is £4 13s., leaving net tax payable £12. As we have said, we do not understand why the interest is deducted in the case of the money borrowed.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

S. M. (11/8).—QUALIFYING EXAMINATION.—The instructions to candidates sent out by the Pharmaceutical Society are quite clear: "On and after 31st October, 1923, candidates shall be examined, etc." There is no reservation, and unless such is made in favour of those who have passed in Part I. the syllabus in pharmacy will be the one in force. You have not done any more in the volumetric chemistry than may be expected under the new syllabus. The addition of volumetric in practical pharmacy under the new syllabus is an extension of that subject, and must be regarded as an addition rather than a transfer.

J. H. H. (2/8).—GAS OIL is used for producing gas for illuminating purposes. It varies in composition and physical characters according to the source—crude petroleum, lignite tar and shale oil tar. Generally gas oils are yellow in colour and boil between 300-400° C. They are soluble in two volumes of alcohol at ordinary temperature. There is a useful chapter on "Gas oil" in Thorpe's "Dictionary of Applied Chemistry."

H. W. D. (3/8).—IVY-GUM is obtained by making incisions in the stem of the common ivy, *Hedera Helix*. It is reddish-brown in colour and burns with an aromatic odour. It is sometimes used for rubbing on bait to render it attractive to fish.

T. U. T. (19/6).—HARNESS DRESSING, applied with a sponge.—There are various forms of this class of harness polish. A commonly used kind is made as follows:—

Whites of two eggs	
Spirit	... 3j.
Sugar	... 3l

Ivory black to make a paste.

Apply with a sponge and polish with a silk handkerchief.

Shellac or copal varnish is also used coloured with ivory black, to which turpentine is added to bring it to the correct consistency. Another variety contains wax dissolved in turpentine.

T. M. W. (18/6).—BOOKS ON MAIL ORDER BUSINESS.—Wilson's "Mail Order Organisation" (Pitman, 3s. 6d.); Cody's "How to do Business by Letter and Advertising" (Constable, 5s.).

J. A. D. (16/6).—(1) VALUE OF BUSINESS.—An average business of such as you mention is worth three years' gross profit, but, obviously, any price must be contingent on the value of stock. A yearly tenancy without agreement is a disadvantage when seeking a purchase, as a new tenant will require the landlord's consent which might not be given on easy terms. (2) We do not consider that stomach troubles would be affected in the slightest by wearing dry-cell batteries. Electric cells can only act as a stimulus to nerve centres where some sort of contact is made.

D. S. (21/8).—HERB TOBACCO-SUBSTITUTE.—The following is from "Pharmaceutical Formulas":—

Coltsfoot	... 8 lb.
Eyebright	... 1 lb.
Thyme	... 1 lb.
Hyssop	... 1 lb.
Rosemary	... 1 lb.
Lavender flowers	... 2 lb.
Rose petals	... 8 oz.

Mix.

T. O. O. (11/8).—The hair preparation marked "L. X." consists of a colourless liquid with a pale yellow suspension, which appears to consist entirely of pure precipitated sulphur. The liquid contains a little lead acetate and glycerin (probably one-sixteenth part). The preparation marked "D. X." consists of a colourless liquid with a white suspension, which proved to be a mixture of zinc oxide and precipitated sulphur containing calcium sulphate. The liquid appears to contain only glycerin (probably one-sixth part) and water.

W. S. S. (18/8).—HAIR-FIXING CREAM.—See *C. & D.*, II., 1922, p. 702.

A. H. C. (24/8).—LUMINOUS PAINT.—Heat to cherry redness for twenty minutes a mixture of finely-powdered oyster shells, 20 gm.; sulphur, 6 gm.; starch, 2 gm.; 8 c.c. of a solution containing 0.55 gm. of basic bismuth nitrate in 100 c.c. of absolute alcohol acidified with a few drops of hydrochloric acid. After calcination the upper layer, consisting of calcium sulphate, is removed, and the remainder of the mass powdered and again heated for fifteen minutes.

W. M. C. (20/8).—COW'S UDDER TROUBLE.—This is probably induration of the udder. Bathe frequently with warm water, to which an antiseptic has been added. If necessary, draw off the milk by means of a teat syphon. Should pus form and not escape by the teat, an operation may be necessary. Ung. althææ should be rubbed on the part several times daily, or one of the following may be employed:—

I.	II.
Cera flav. ... 3j.	Ol. olivæ ... 3iv.
Ung. hyd. ... 3iv.	Emp. galbani ... 3ij.
Ferri hydrox. ... 3j.	Cera flav. ... 3iij.
Lin. camph. ... 3x.	Mix. Stir in a little honey
Sig. Apply to the part	and rub on udder gently
twice daily.	twice daily.

H. L. B. (21/8).—HEX'S WASH.—The recipe for this is as follows:—

Zinci sulphatis	... gr. ij.
Tr. lavand. co.	... ℥ 10
Aq.	... ad 3j.

Midlands (3/7) and M. R. H. (20/3).—CINEMATOGRAPH THEATRE SPRAY SOLUTION.—We gave a formula for this in the *C. & D.*, I., 1922, p. 702. This contains formalin, as you desire, but the present preference seems to be to replace the sweet essential oils (rose geranium, lavender and bergamot) by pine-needle oil or boruyl acetate. The cost of spirit being prohibitive for such a purpose, it should be replaced by a mixture of acetone and iso-propyl alcohol. The following formula constructed on these lines can form the basis of your experiments:

Pine-needle oil	... 2 oz.
Formalin	... 2 oz.
Acetone	... 6 oz.
Iso-propyl alcohol to make	... 23 oz.

For use, mix 1 oz. with a pint of water to form a spray.

T. M. W. (25/7).—ISO-PROPYL ALCOHOL is being used to replace part of the ethyl alcohol generally employed in making flavouring essences. Like ethyl alcohol, iso-propyl alcohol is dissipated by the heat of cooking, and in any case the proportion of alcohol in the articles flavoured with the essence is infinitesimal. Particulars of the relative properties of these alcohols were given in the *C. & D.*, I., 1922, p. 624, and II., 1922, p. 159.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist," September 15, 1873

Chinese Chemistry

Dr. Porter Smith recently read an interesting paper on "Chinese Chemical Manufactures," before the North China Branch of the Royal Asiatic Society. We are told that alchemy was studied among the Chinese two centuries before the Christian era, and it therefore seems probable that the Arabian or Mohammedan traders, who were the reputed discoverers of this art, and had frequent and early intercourse with China by land and by sea, borrowed this interesting branch of knowledge from the Chinese as the first professors of the true science. In the pursuit of some flux by which the dross of animalism was to be purged away, and the higher part of man's nature to be crystallised out and sublimed into some stable and eternal form, these Taoists practised fasting, discipline, worship, the use of charms, and the search for a sovereign remedy for all the ills of life.

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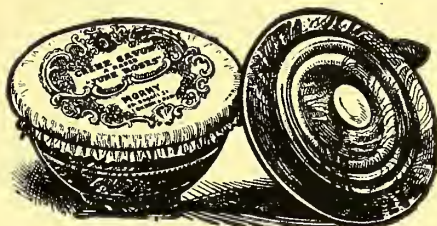
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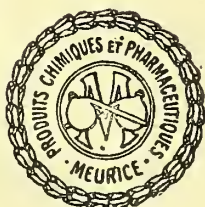
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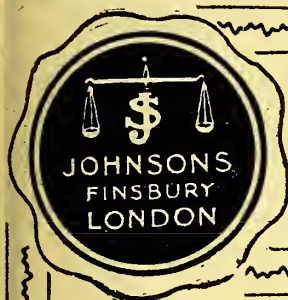
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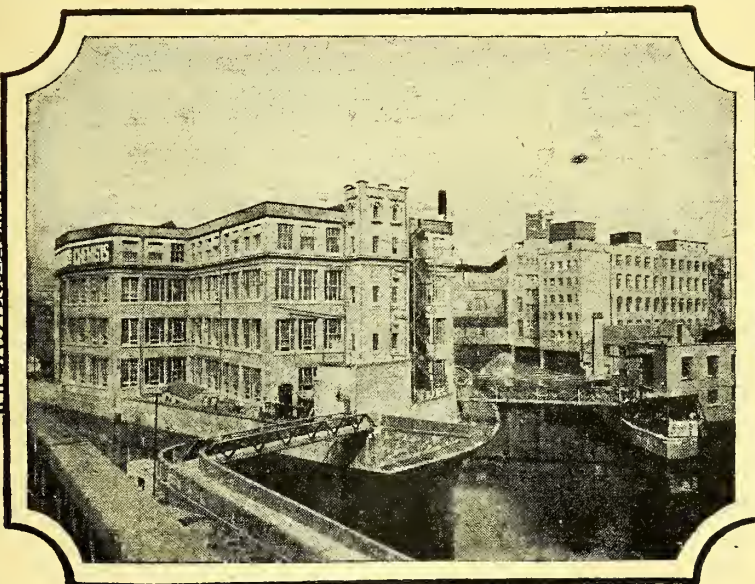
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ASPIRIN.
ACETANILIDE.
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ACRIFLAVINE.
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HALAZONE.
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RESORCIN MONO ACETATE.

CHLOROPHYLL (oil and spirit sol.)
QUINOPHAN—BOOTS.
GLUCOSE—PURE.

PRICES ON APPLICATION.

LOCAL ANÆSTHETICS.

BENZAMINE, HYDROCHLORIDE.
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SACCHARIN DERIVATIVES.

SACCHARIN (550).
SACCHARIN (soluble).
P. TOLUENE SULPHONCHLORIDE.
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GLYCEROPHOSPHATES.

GLYCEROPHOSPHATES OF SODIUM.
CALCIUM, &c.

PERFUMES.

B. NAPHTHOL METHYL ETHER.
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P. CRESOL METHYL ETHER.
GERANIOL AND ESTERS.
IONONE.
BENZYL ACETATE.
EUGENOL.
METHYL ACETOPHENONE.

BOOTS PURE DRUG CO., LTD.

MANUFACTURING CHEMISTS AND
MAKERS OF FINE CHEMICALS.

STATION STREET ——— NOTTINGHAM.

TELEPHONE: 3160

TELEGRAMS: "DRUG NOTTINGHAM."





Hubbuck's Pure Oxide of Zinc

is made by sublimation, and is
warranted to contain upwards of
99.5 PER CENT.

of pure oxide; in fact the
impurities are not traceable.

Thos. Hubbuck & Son, Ltd.

ESTABLISHED 1765

24 Lime Street, London, E.C.3.

MANUFACTURERS OF WHITE LEAD, WHITE
ZINC, PAINT, OILS, COLOURS, VARNISHES, &c.

Australian Office: 34 Queen St., Melbourne.

Sold by the following Wholesale Druggists
in Boxes of 7 lb. and 14 lb. stamped by
the Manufacturers; also in 1-lb. Boxes and
1-lb. Glass Bottles

Allen & Hanburys (Lim.)	Hodgkinson, Prestons & King.
Ayrton, Saunders & Co. (Lim.)	Hodgkinsons, Clarke & Ward
Baiss Bros. & Company	Horner & Sons
Bell, Jno., & Co. (Lim.)	Huskisson, H. O., & Co.
Bleasdale (Lim.) (Lim.)	Inman's Stores (of Edinboro')
Boots' Pure Drug Co.	Lothouse & Saltmer (Lim.)
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"Multum in Parvo."

"VAPOFORM" Disinfectant

Regd.

For disinfection of
Rooms
Confined spaces, &c.

for HOME
and HOSPITAL.

Has no injurious effects
whatever on Furniture,
Utensils, &c.

Small size, capable of disinfecting
1000 to 2000 cubic ft., 8/6 per doz.
Large size, capable of disinfecting
3000 to 6000 cubic ft. 13/- per doz.

Sole Proprietors—

HARKNESS, BEAUMONT & CO.,
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Pyrogallic Acid Gallic Acid

Manufactured by **J. L. ROSE**

At ABBEY ROAD, BARKING, LONDON, E.

Wholesale and Export Only.

REAL SILVER LEAF

As supplied for many years to the leading Houses for Pills, Cachous, &c.

We also supply
GOLD LEAF AND GOLD POWDERS

WHOLESALE ONLY.

E. WINTER & CO., LTD.

Head Office: 64 Cheapside, London, E.C.2. Telephone: Central 985

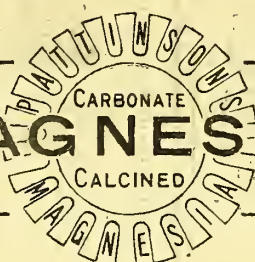
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from Chemically and Physiologically tested Drugs
WILLOWS, FRANCIS, BUTLER & THOMPSON, LIMITED
40 Aldersgate Street, London, E.C. 1.

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MAGNESIA

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PATTINSON'S

MAGNESIA

Carbonate, Calcined, Fluid.

*The Washington Chemical Co., Ltd.,
Washington, Co. Durham, England.*

Telegrams: "Chemical, Washington Station." Telephone: 3788 Central, Newcastle-on-Tyne.

**ENGLISH DRIED HERBS
ROOTS, etc.**

Clover Flowers, Broomtops, Yarrow, Mugwort, Mouse-ear, Wild Carrot, Ground Ivy, Speedwell, Agrimony, Coltsfoot leaves, Bittersweet, Fumitory, Dog-grass, Yellow Dock, Poppy heads, Comfrey root, etc.

For full list apply—

FLEMONS & SONS (Herb Merchants) **DUNSTABLE**

Theobromine Pure Alkaloid

9/10 per lb.

Theobromine Sod. Salicylate

6/6 per lb.

ex STOCK LONDON.

**Societeit voor Chemische Industrie,
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THE EASTERN & RUSSIAN TRADING Co., LTD.

3 Drapers Gardens, Throgmorton Avenue, London, E.C.2.

SOLE DISTRIBUTERS OF

SANTONIN

B.P. 14

IN ORIGINAL 1 KG. PACKETS

FROM RUSSIA TO THE WHOLE WORLD.

STOCKS IN LONDON.

TABLETS

The **LOWEST PRICED** tablet is **NOT** always **THE CHEAPEST**. Great care is necessary in the manufacture of compressed tablets in order to ensure accuracy of dosage, rapid disintegration and good appearance. The drugs themselves must be of the best quality. It is **NOT NECESSARY TO PAY FANCY PRICES**, but it is **NOT WISE TO EXPECT GOOD TABLETS AT ULTRA LOW PRICES**.

Order from :

The THAMES CHEMICAL Co., Ltd.
(The Cooper Laboratory), WATFORD.

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FOR

LOZENGES
PASTILLES
CAPSULES
CACHOUS
EUCALYPTUS
OIL

CARLTON WORKS,
Asylum Rd., London, S.E. 15

THE BEST HOUSE FOR
ASPIRIN
CASCARA
AND ALL TABLETS IN BULK.

Write for samples and prices before buying.
Superior machinery and scientific control.

R. GIBBINS & CO.
1 BIRKBECK ROAD, KINGSLAND, LONDON, E.8.

For
PILLS & TABLETS

By the gross, thousand or million,
send to the *Experts*, and save
money and disappointment.

MATTHEWS & WILSON, Ltd.
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HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care, in the greatest chemical purity by
Messrs. THOMAS & WILLIAM HENRY, 11, East Street, St. Peter's, Manchester.
And is sold in Bottles, authenticated by a stamp bearing their name. Trade Mark, "Henry's Calcined Magnesia".
New York: Messrs. SCHIEFFELIN & CO, William Street. **PRICE 2s 9d** Paris: Messrs. ROBERTS & CO, 5, Rue de la Paix.

NEPENTHE.

THE SAFEST AND BEST PREPARATION OF OPIUM.

The word "Nepenthe" is registered under the Trade Marks Act, and is our exclusive property. No substitute may be dispensed when "Nepenthe" is ordered in a prescription. "Nepenthe" comes within the regulations of the Dangerous Drugs Act, 1920.

FERRIS & COMPANY, LIMITED, BRISTOL.

“DEGA” Brand
ASPIRIN B.P.

Specially Prepared for Tablet Making

BROMIDES PHENAZONE

CARMINE

Pepsine Pancreatine

OLIVE OIL SAFFRON

THYMOL

and all other pharmaceutical chemicals FROM STOCK

CHAS. ZIMMERMANN & CO. (Chemicals) LTD.

9/10 St. Mary-at-Hill - - LONDON, E.C.3

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Telephone: MINORIES 2652.

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Bentley's: A B C, 5th Ed.Tel. Add.: "CELAITCH, BILGATE, LONDON."
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CHARLES L. HUISKING, LTD.

74 Great Tower Street, LONDON, E.C. 3.

PHARMACEUTICAL CHEMICALS, DRUGS, ROOTS, HERBS, LEAVES, etc.

*Representing in England the following—***"ORANJE," LTD., Amsterdam**
A. OULMANN & CO., Leghorn- Essential Oils, Synthetics, etc.
- Olive Oil, Orris Root, Juniper Berries,
Italian Produce**ALF. GAUSSEN, Nimes, France**
PABLO GROSSMAN, Mexico City- Roots, Herbs and Leaves
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and Redistilled**J. L. P. SPOHR, Lugano, Switzerland**

- Extract of Male Fern Root

AGENTS FOR AMERICAN FIRMS.*Let us have your Enquiries.*American
Correspondents**—CHAS. L. HUISKING, Inc., 5 Platt Street,**Cable Add.: "CELAITCH NEW YORK."
Codes: A B C, 5th Ed.; Bentley's Improved.**NEW YORK CITY, U.S.A.**

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**WHOLESALE AND RETAIL
CHEMISTS AND DRUGGISTS.**Druggists' Sundriesmen.
Dealers in Surgical Instru-
ments, Dental, Optical,
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Perfumery, and Assay and
Mining Requisites. Con-
tractors to Hospitals and
Public Institutions.**AGENCIES UNDERTAKEN.***London Office:***12-14 LAFONE ST., LONDON, S.E.1.****DUTCH**

Sugar of Milk.

"THE BEST"**HOLLANDSCHE
MELKSUIKERFABRIEK****Amsterdam.**

THE PARMINT SEASON IS HERE!

MAMMOTH ADVERTISING CAMPAIGN

Starts September 1st.

ADD 5% TO YOUR PARMINT PROFIT

Now is the time for you to order 6 dozen Parmint from your Wholesale House or direct from us and get 5% additional Parmint Profit. Be ready to supply the demand our Advertising Campaign will create for Parmint, the World's Greatest Remedy for Coughs, Colds, Catarrh, etc.

PRICES—27/- per doz., less 5% special discount on 6-dozen Orders.

INTERNATIONAL LABORATORIES
10 Phoenix Place, Mount Pleasant, W.C.1

Monthly Account.



Carriage Paid.

New Window Display Terms.

		Cost.	Sells for.
		s. d.	s. d.
6 only 3/-	.. ..	13 6	18 0
6 " 5/-	.. ..	22 0	30 0
3 " 12/-	.. ..	26 0	36 0
		61 6	
Less 5/- for Display		5 0	
		56 6	84 0

Showing a Nett Profit of 27/6 on an outlay of 56/6, 48.2%.

PRICES PROTECTED, SEE P.A.T.A. LIST. MUST ONLY BE RETAILED AT 3/-, 5/- and 12/- RESPECTIVELY.

Names of Chemists availing themselves of this offer will be inserted with our advertisements in the "Daily Mail" as holders of stock.

PHYSIKURATE Ltd., 92a UPPER CLAPTON ROAD, LONDON, E.5.

CLARKE'S BLOOD MIXTURE & OTHER PREPARATIONS

Wholesale Prices.

	SIZES.	PRICE PER DOZEN.
Clarke's Blood Mixture	3/- & 12/-	£1:7:0 & £5:8:0
„ Miraculous Salve	1/3, 3/- & 5/-	11/-, £1:7:0 & £2:4:6
„ Special Aperient Pills ..	1/3, 3/- & 5/-	11/-, £1:7:0 & £2:4:6
„ Patent Skin Lotion	1/3	11/-
„ Medicated Soap	1/-	9/-

Orders: Minimum quantity £16:4:0 value.
FREE CASES. Carriage paid upon orders of £100.

All Wholesale Houses keep a large stock of our Preparations and can supply smaller orders promptly.

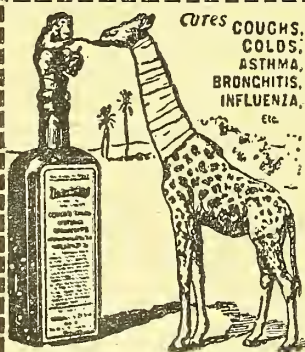
Minimum Retail Selling Prices: 1/-, 1/3, 3/-, 5/- & 12/- Face Value, giving a **PROFIT** of $33\frac{1}{3}\%$ on cost to Distributors.

An attractive Showcard and Dummies supplied on application.

Trade Mark: "BLOOD MIXTURE." Regd. No. 3275.

Sole Proprietors:

THE LINCOLN & MIDLAND COUNTIES DRUG CO., LTD.
Park Street, LINCOLN.



"No case too bad!"

Licoricine
ACTS LIKE MAGIC

For Coughs, Colds, Asthma, Bronchitis, Influenza, Whooping Cough, &c.

10½d. size	-	-	-	8/6 per doz. net.
1/3	"	-	-	12/-
3/-	"	-	-	27/-

£2 worth Carriage paid. £6 worth and upwards, subject to 5% discount. Minimum Retail Prices, 10½d., 1/3 & 3/-.
N.B.—This allows the Chemist a profit of nearly 33%, or 4d. in the 1/- on £6 lots.

MANDALL & CO. LTD., 17/23 STEPNEY ROAD, NEWCASTLE-ON-TYNE.

QUININE

QUINIDINE
CINCHONINE
CINCHONIDINE

and

SALTS

Sugar-coated Quinine Tablets and Pills.

Gelatine-coated Oval Pills.

BANDOENG
JAVA

BANDOENG QUININE FACTORIES

AMSTERDAM
De Wittenkade 48-50.

Telegrams: "Kininefabriek Bandoeng."

Samples, prices and particulars on application.

Telegrams: "Semadmy Amsterdam."



“GRIPS” Biggest Advertising Campaign Starts September 15th

Are you Stocked for Big Business?

September 15th will see the commencement of the biggest and best advertising campaign ever issued on behalf of a medicated pastille. It will advertise and sell “GRIPS” FIRST-AID PASTILLES. Large spaces containing brisk, sales-making “copy” will appear daily in the leading London and provincial newspapers and periodicals.

There will be a big public demand for these popular pastilles; are you stocked for big business?

Order a Trial Case of “GRIPS” to-day. Low Prices—Big Profits.

12 & 5 lb. tins or jars.

11/6 each, return 16/8.

PROFIT 5/2

1/- Pocket Tins cost you

9/- per doz.

PROFIT 3/-

SPECIAL TERMS FOR QUANTITIES.

A full range of local show material to link your shop to the press campaign supplied with all orders.

Agents:
Thos. Christy & Co.,
4-12 Old Swan Lane,
London, E.C.4.

“GRIPS”

First Aid Pastilles.



“GRIPS” The Trade's Best Seller.

*A High-class Pharmaceutical Preparation
for sale by Pharmacists only*

WESTON'S 'STOP-COUGH'

MANUFACTURED BY QUALIFIED CHEMISTS
AND SOLD ONLY BY QUALIFIED CHEMISTS.
CAN BE RECOMMENDED WITH CONFIDENCE
∴ AND CARRIES A GOOD PROFIT. ∴

Send us a post-card for our Special Window Display Terms.

GRAFTON CHEMICAL CO., LIM'D.
59 GRAFTON STREET, MANCHESTER.

PHONE: CENTRAL 6914

NURSE HARVEY'S MIXTURE

A safe, simple, and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessities from him. Moreover, the retailer has a profitable return on a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

BARKOLA

RHEUMATISM SPECIFIC.

The DOUBLE-PROFIT Line

Wholesale **30/- doz.** Retail **3/-**

Every bottle carries instructions to the chemist to make up to the following Standard Formula.

*Liq. Barkola Comp., 1-oz.; Tincture of Gentian, 1-oz.;
Syrup of Rhubarb, 1-oz.; Syrup of Ginger, 5-oz.*

You Dispense at Your Price:

RETAIL PROFIT+DISPENSING PROFIT.
IT PAYS TO PUSH BARKOLA.

The Barkola Co. 42 Great Dover St., S.E.1.

"CEPHOS"

The Physician's Remedy for Headache, Neuralgia, Neuritis, Rheumatism, and Influenza.

**LIBERAL
TRADE TERMS.**

Sole Proprietors:
CEPHOS, LIMITED
BLACKBURN.

**RETAILS at 1/3 and 3/-
Single Powders .. 2½d.**

5% Bonus

On All Direct Retail Orders

for

VIROL

and

Virolax

from

1st September

to

15th October

*The Bonus is strictly limited
to orders placed not later
than the 15th October.*

*Look out for full particulars now being
posted to all customers.*

VIROL LIMITED, HANGER LANE, EALING, LONDON, W.5.

SPUN OINTMENTS & SPUN CREAMS

ARE

THE STANDARD BEST POSSIBLE

Bulk and packed. Most attractive prices, most attractive packing. Quick selling and profitable and a credit to the chemist retailing them.

Decorated or printed with name and address in assorted quantities that any chemist can easily sell.

Chemists doing a country wholesale find these an excellent line to handle.

Quotations and samples on application.

Own formulas made up and spun to silky texture.

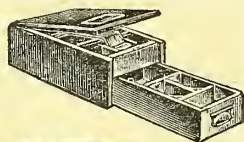
Telephone :
Hop 2415

ROBERT BLACKIE

Telegrams :
"Ushenspuna,"
London.

Shen Works, Tower Bridge Road, London, S.E. 1

Description. All drugs, chemicals and packed goods necessary to the chemist. Our packed goods repeat.



THE "LITTLE PRINCE" TILL.
Well-seasoned hardwood, Mahogany polished.
Alarm Bell. Lid fitted with lock and key.
Size over all, 16x8½x6½ ins. each **39/6**

Till Coils, 2½ ins. wide, 5/- dozen extra.

THE "EFFICIENCY" TILL.
Solid Mahogany, highly polished. Check action
to drawer. Lid fitted with lock and key.
Alarm Bell. Spring Clip. Size over all,
18x9x7½ ins. Complete, packed each **77/6**

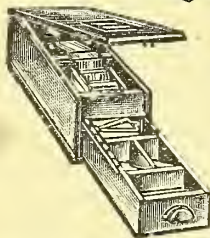
Can also be supplied in solid Oak at same prices
Till Coils, 3½ ins. wide, 5/- dozen extra.

List No. C.D. 1009 of other Tills free on request.
Any Till supplied on 14 days' approval
upon receipt of cash or two wholesale trade
references.

DUDLEY & COMPANY (C.D.)

Holloway Rd., London, N.7.

City Showrooms: 65 Fore Street, E.C.2.



Milner Cleaner

FOR

White Straw Hats

Carriage Paid Parcels.

6 doz. 10/- 12 doz. 19/- **3d.**
13 to dozen for
cash with order.

Specimen Hat with 1½ gross

Discount 20/- orders, 2½ %;
£5 order, 5 %; £10, 7½ %

Milner's Chemical Co., Robson St., Liverpool.

BEECHAM'S PILLS

WHOLESALE PRICES.

BEECHAM'S PILLS:

1s. 3d. size ... 10s. 6d. per doz. net.
3s. 0d. " ... 26s. 6d. "
5s. 0d. (new size) ... 50s. 0d. "
(contains double the quantity of 3s. box)

Minimum quantity £5 value.

Packages Free.

BEECHAM'S COUGH PILLS:

1s. 3d. size ... 10s. 6d. per doz. net.
3s. 0d. " ... 26s. 6d. "

Carriage Paid.

Cash with Order.

Cheques to be made payable to THOMAS BEECHAM, and crossed "Parr's Bank, Ltd., St. Helens."

WE ARE
THE ACTUAL MAKERS
OF
CAMPHOR ICE
IN BLOCKS

Supplied in Tins or Loose
Tablets already tinfoiled and
ready for own packing.

State your requirements and
how you desire packed, when
prices and sample will be
forwarded free.

MACSONS LTD.

MANUFACTURING CHEMISTS,

Blyth, Near NEWCASTLE-UPON-TYNE.

IDOZAN

This new colloidal form of
Iron is widely prescribed by
members of the Medical
Profession and gives aston-
ishingly good and prompt
results in the treatment of
Anæmia.

Retail 5/- per Bottle.

You may recommend it
with confidence and sell it
with profit.

Write for particulars and
acquaint yourself with its worth

Order through your Wholesaler.

Stocked by BLEASDALE,
LTD. (York) — SANGERS—
MAY ROBERTS—EDWARDS
—RAIMES CLARK (Leith)—
JOHN THOMPSON (Liver-
pool) — JAMES WOOLLEY
(Manchester) — BARCLAY &
SON (London) — T. & H.
SMITH (Glasgow and Edin-
burgh), and others.



CHAS. ZIMMERMANN & CO. (Chem.), LTD. Ferrosan
Dept.
9-10 ST. MARY-AT-HILL, LONDON, E.C.3.

W. WOODWARD (1920) Ltd.

beg to remind you that you can
now buy 6 dozen parcels of

WOODWARD'S
"GRIPE WATER"

direct @ 12/3 doz.

and that they are making a

NEW COMBINED

Counter Display
OFFER

TO RETAIL PHARMACISTS

OF

WOODWARD'S
"GRIPE WATER"

AND

WOODWARD'S
"BABY SOAP"

In return for not less than one month's continuous
counter display of not less than 1 doz. Woodward's
"Gripe Water"; a case of Woodward's "Baby Soap,"
and a box of Court Plaster, with a packet of 12
"Fifteen Points for Mothers," in colour—to be placed
in front of case.

COST TO YOU.

6 Doz. "Gripe Water" @ 12/3	..	£ s. d.
6 Tablets "Baby Soap" @ 9d.	..	3 13 6
6 Tablets "Baby Soap" free.		4 6
1 Box 25 Court Plaster free.		
TOTAL COST	..	£3 18 0

SELLING PRICE.

6 Doz. "Gripe Water" @ 15/-	..	4 10 0
1 Doz. Tablets "Baby Soap" @ 1/-	..	12 0
25 Court Plasters at 2d. ..	..	4 2
TOTAL RETURN	..	£5 6 2

YOUR PROFIT = £1 - 8 - 2.

37% on Cost.

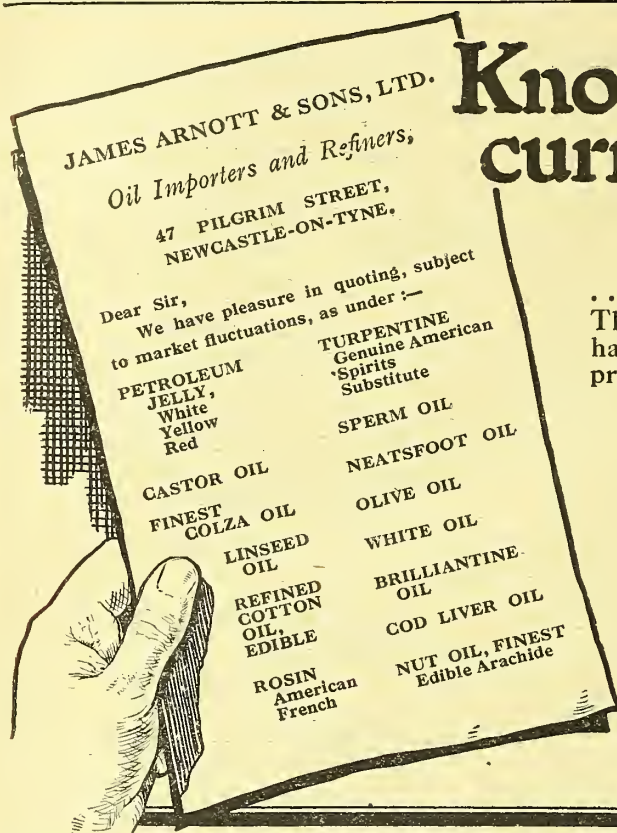
Packages and Carriage Free.

This offer is limited for each customer to **two orders**
per year only.

Order direct from

W. WOODWARD (1920) LTD.,
79/87 FORTRESS ROAD, LONDON, N.W.5,

or through your usual Wholesalers.



Know the lowest current prices regularly

... by means of our monthly price list.

Those who receive this list every month have at their finger-ends the lowest current prices at which the oils they need can be bought.

All qualities are in accordance with B.P. Standard requirements. Special manufacturing care ensures the minimum of variation.

Send a postcard for full details; your name will be added to the list of those who regularly have these useful lists. No obligation is entailed. Write now!

JAMES ARNOTT & SONS Ltd.

Head Office:
47 Pilgrim St.,
Newcastle-on-Tyne.



GENUINE RUSSIAN LIQUID PARAFFIN

ALL GRAVITIES, HIGHEST VISCOSITIES.

"JASMINE BRAND" PETROLEUM JELLIES

WHITE AND AMBER.

"JASMINE BRAND" WHITE OILS

CHEM. PURE, WATER-WHITE,
TASTELESS, ODOURLESS.

FOR MANUFACTURING PURPOSES.

LUBRICATING OILS FOR ALL PURPOSES.

THE PURE RUSSIAN LIQUID PARAFFIN CO., LTD.

3 ST. HELEN'S PLACE, LONDON, E.C. 3.

Actual Refiners and Manufacturers at their works near London.

B. P.
1914
FINEST
QUALITIES.
COMPETITIVE
PRICES.

PETROLEUM JELLIES

Medicinal

LIQUID PARAFFIN

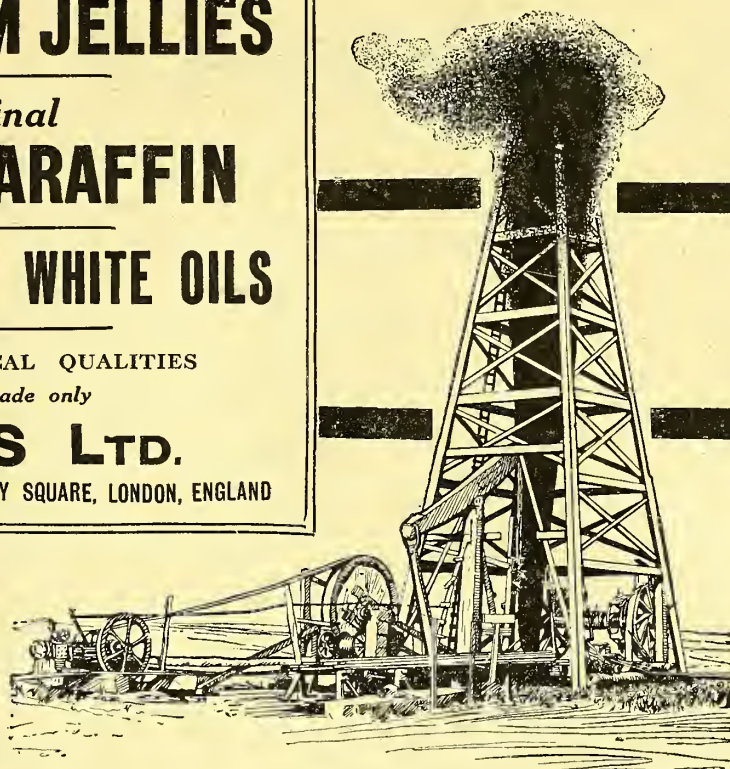
WHITE & HALF WHITE OILS

B.P. AND TECHNICAL QUALITIES

Wholesale Trade only

STERNS LTD.

80 ROYAL LONDON HOUSE, FINSBURY SQUARE, LONDON, ENGLAND



ADEPS LANÆ, P.B.

THE FINEST BRITISH LANOLINE PRODUCED

IS MANUFACTURED BY

THE PHARMACEUTICAL LANOLINE CO.

Carnwath Road, Fulham, London, S.W.6.

Telephone: Putney 42.

WHO INVITE ENQUIRIES. Telegrams: "Batapo, Walgreen, London."

PETROLEUM JELLY.

Gough, Kidston & Co.

Chemical Manufacturers,

Tanning & Dyewood Materials & Extracts,

Gum & Wax Merchants,

Tel. No.:
Minorities 2666 and 2667.

Tei. Add.:
"Kidstonism,
Bilgate, London."

43/45 Gt. Tower Street, London, E.C. 3.

WORKS:
BERMONDSEY.

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Petroleum Jelly

White, Yellow, Amber,
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Pharmaceutical and
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MEADE-KING, ROBINSON & CO., LTD.
LIVERPOOL - LONDON - MANCHESTER - LEEDS.

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PARAFFIN B.P.
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SUTTON'S

CLOUDY AMMONIA

To-day, as ever, the extra strength of
**SUTTON'S
CLOUDY AMMONIA**

makes it the most
efficient and the
most economical
for all purposes.

The enviable reputation
of G.F. Sutton, Sons and
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giving his customer the
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Doesn't that mean
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time for YOU?



Sole Manufacturers:
G. F. SUTTON, SONS & CO.
Osborne Works, Brandon Rd.
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"A good name is more than riches"

The simile between Harley Street and Waide's of Leeds

Specialists in Harley Street. It is the recognised home of those who devote their lives to one or other of the many branches of the medical profession. They are consulted for their specialised knowledge.

Similarly, Thomas Waide & Sons Ltd., of Leeds, are specialists in printing for the Chemist and allied trade.

PRINTING SPECIALISTS *for* CHEMISTS & DRUGGISTS

For 50 years the printing requirements of Chemists and Druggists have been a special study of this firm. Such long experience and specialised knowledge peculiar to the trade is at your disposal.

Whether for a small handbill or a 16 sheet poster, the same careful thought and attention is applied, which means complete satisfaction to the purchaser.

Your enquiries are invited.



THOMAS WAIDE & SONS LTD.
The Chemists' Printers, Leeds.

Sterilised Surgical & Accouchement Dressings

IN DRUMS,
HERMETICALLY
SEALED



READY FOR
IMMEDIATE
USE

Accouchement Outfits

Minor and Major Operation Sets

Garments, Towels, etc.

Full particulars on application :

SQUIRE & SONS, LIMITED

Chemists on the Establishment of the King
and to H.R.H. The Prince of Wales

413 OXFORD STREET

LONDON, W.1

Telephone :
MAYFAIR 2307 (2 lines).

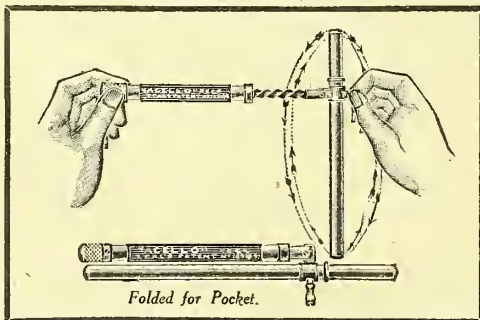
DAY AND NIGHT SERVICE

Telegrams :
"SQUIRE, WESDO, LONDON."

NO MORE DIFFICULTY IN SHAKING
DOWN A CLINICAL THERMOMETER!

ZEAL'S ^{NEW} PATENT "ACELLO" (REGD.)
RESETTING CASE

PATENT NO. 169104/20



RESETS ANY CLINICAL THERMOMETER
IN AN INSTANT.

Write for full particulars to

G. H. ZEAL, LTD. Manufacturers of all
kinds of Thermometers,

REGD.
TRADE MARK

77 St. John St., London, E.C.1

EST. 1888. Telegrams: "Zealdom, London."



When going
on holidays

impress on your customers
the advantages of taking
with them

NORVIC
(REGD.)

Crêpe Bandages

They prevent as well as
cure varicose veins and
are hygienic and practi-
cally invisible.

Recommended by doctors
and nurses everywhere.

Sole Manufacturers: GROUT & CO., Ltd., Great Yarmouth
London Agent - T. S. Eastaway, 35 Wood Street, E.C.2

No. 957



The "EMPIRE" HOT WATER BOTTLES

Further Reductions in the Prices of the Grey Rubber Bottles

CHEMISTS who have built up a reputation for reliable Hot Water Bottles continue to order our well-known "EMPIRE" brand of these goods. Do not risk trying an unknown make.

There are plenty of light-weight Bottles on the market, but the "heavy-weight," as ours, wear much longer.

One quality only—the best. Guaranteed for two years.

For orders of 3 dozen lots we allow 5% special discount.

		PRICES as follows:—							
Heavy make	Sizes	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14 in.
Grey rubber	each	3/-	3/2	3/4	3/6	4/-	4/4	4/6	5/3
Red rubber	"	3/8	4/-	4/4	4/8	5/-	5/6	5/9	6/6

Each bottle in a strong paper bag with directions for use.

		COVERS							
Scarlet or grey plush	Sizes	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14 in.
ea.		1/2	1/4	1/6	1/7	1/8	1/10	2/-	2/3
Velour, assorted colours	each	6×8	6×10	6×12	8×10	8×12	8×14	10×12	10×14 in.
(washable)		1/3	1/5	1/7	1/9	1/10	2/-	2/3	2/6

MUFF WARMER, red rubber, oval shape, 3½×7 in., each 2/-

HAIR BRUSHES.

No.									
583.	Ladies', ebonised wood back	..	..	11	rows bristle	..	per doz.	22	0
598.	" " " "	..	..	11	"	..	"	30	0
561.	" real ebony back	..	..	11	"	..	"	54	0
587.	Gents' (Military shape) ebonised wood back	..	..	9	"	..	"	27	0
593.	" " real ebony	..	..	11	"	..	"	36	0

TOOTH BRUSHES.

No.		Per doz.	No.		Per doz.
747.	Bone handle, 3 rows bristle	4 6	730.	Celluloid handle, 3 rows bristle	5 6
700.	" 4 "	6 0	707.	" 4 "	7 6
701.	" 4 "	7 0	734.	" (London Make) 4 "	8 0

DRESSING COMBS.

No.		Per doz.	No.		Per doz.
320.	Black galalith 7½ by 1½ in.	6 0	195.	Black vulcanite 8 by 1¾ in.	12 6
285.	White " 7½ by 1½ in.	6 6	106.	White celluloid 8½ by 1¾ in.	12 6
340.	" celluloid 8 by 1¾ in.	8 0	288.	" galalith, stout 7½ by 1¾ in.	14 0

RAKE COMBS.

No.		Per doz.	No.		Per doz.
282.	White galalith 7½ by 1¾ in.	6 6	196.	Black vulcanite 8 by 1¾ in.	12 6
224.	" celluloid 8 by 1¾ in.	8 0	174.	White celluloid 8 by 1¾ in.	12 6

POWDER PUFFS.

No.									
1749.	Handkerchief Puff, wool centre, georgette assorted colours	..	..	per doz.	9	0			
	" " fancy voile	..	..	"	12	0			
	" swansdown centre, silk	..	..	"	14	0			
	" " crepe, Special line	..	..	"	18	0			
	" beaver centre, crepe, assorted colours	..	..	"	22	0			
	" " " "	..	..	"	30	0			
	" " large size	..	..	"	36	0			
1748.	Bag Puff, "Ellen Terry" pattern, wool centre, silk, assorted colours	..	..				
	SIZES	2	3	4	5	6	7	8	
	per doz.	6/6	9/6	12/-	14/-	17/-	23/-	32/-	

CARRIAGE PAID ON ORDERS OF £3 AND UPWARDS.

A discount of 5% for prompt cash is allowed on all amounts of 10/- and upwards. Money returned if goods are not satisfactory. Write for New Price Lists of Druggists' Sundries, Toilet Requisites, Rubber Goods, Cut Sheet Rubber Appliances, etc.

BURGE, WARREN & RIDGLEY, Ltd.

91 & 92 GREAT SAFFRON HILL,
LONDON, E.C.1.

**BEST HYGIENIC FEEDERS**

(SPARE BOTTLES.)

Reduced Price, 68/- per gross.
(Sand-blasted Name on 1 gross lots free.)**Standard Hygienic Feeders**7/- dozen. Boxed with Teat, Valve and Brush.
(1 gross lots at 78/- gross.)**H. W. BOTTLES. BEST ENGLISH.**

	6x8	6x10	10x8	8x12	10x12
GREY..	2/9	3/-	3/6	4/-	4/6 each
RED ..	3/8	4/-	4/8	5/4	6/- ..

Yorkshire Dispensing Bottles

2-OZ.	3-OZ.	4-OZ.	6-OZ.	8-OZ.
12/-	13/-	13/-	15/-	15/- gross
10-OZ.	12-OZ.	16-OZ.	20-OZ.	
20/-	21/-	25/-	28/-	..

Carriage Paid, Cases Free, 6-gross assorted lots (100 mile radius). Name Plate free if 20 gross taken over a period of twelve months.

ALL SUNDRIES AT COMPETITIVE PRICES.**THOS. SWALES**

SUNDRIES

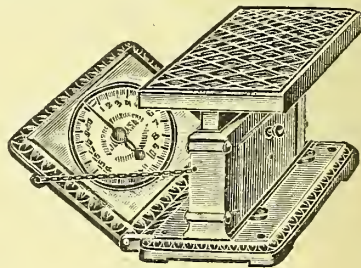
20/24 Butts Court & 89 Albion St., LEEDS

THE "JARASO"
Personal Weighing Machine

BRITISH PATENT No. 23493/1910

Weighs from 1 lb. to 20 stone. The weight is reflected automatically in the mirror.

SIZE 11 x 7½ x 8 inches. WEIGHT 19 lbs.



JAPANNED WHITE.

RETAIL PRICE
REDUCED TO **45/-** each

Liberal terms to Wholesale Houses, Shippers and Export Merchants for re-sale in Great Britain, Ireland and British Colonies only.

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ALBERT C. SHOPPEE, LTD.

(SOLE LICENSEES)

Belmont Street, Chalk Farm, LONDON, N.W.1

**Opportunities
for
Retailers**

We often take back used Cash Registers when customers are installing larger or more up-to-date machines. These National Cash Registers

**Thoroughly Overhauled
and Rebuilt**are sold under the
Company's full guarantee
at reduced prices.*Write for details of "Nationals" available.*

Dept. R.5,

The National Cash Register Co. Ltd.,
225, Tottenham Court Rd., London, W.1.

FORSTERS & VAPOURISERS
FENOLIN for
FLUID Whooping Cough
Hall, Forster & Co., Ltd.
Newcastle-on-Tyne.

ON P.A.T.A.
4 oz. (1/3) 11/-

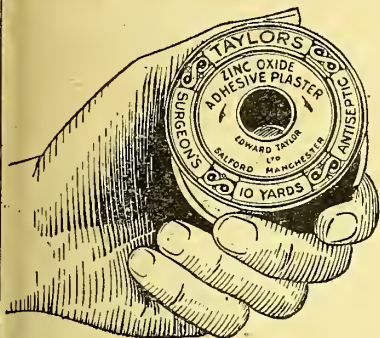
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Send us a postal card and we will send you a 32 page catalogue of professional and business books for pharmacists, and a copy of

"THE SPATULA"

an illustrated monthly magazine for druggists, full of American snap and enterprise.

THE SPATULA, BOSTON 14, MASS, U.S.A.**COOPER & CO.****EVERY SUNDRY
FOR
EVERY CHEMIST.
HIRE DEPARTMENT****7 Pall Mall East, London, S.W.1**TELEphones : Regent 8066 (3 lines).
grams : Superabound, Piccy, London.



Specify—“TAYLOR’S”

WHEN ORDERING

*Medical and Surgical
Plasters*

ILLUSTRATED PRICE LIST ON APPLICATION.

Supplies obtainable from the leading Wholesale Houses.

Edward Taylor Ltd.

Registered Offices
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Telephone: Central 4095.

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Also at BELFAST, NEW YORK and SYDNEY.

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When better Plasters are made—Taylor’s will make them!

T.H. FORD LIMITED  **6, WELL ST. LONDON, E.C.1**

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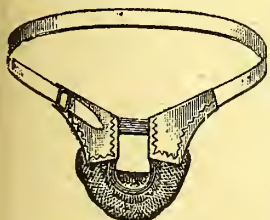
RUBBER WATER BOTTLES

1923 Manufacture.

MOULDED NECKS and specially strengthened reinforced seams.
DELIVERIES immediately of all sizes from stock.

ALL GOODS branded with registered trade mark and full direction tab.

WE GUARANTEE EVERYTHING WE SELL



Send your Enquiries for
Chest Protectors
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Surgical Hosiery, etc.
to the Actual Makers:

A. B. FROST & CO. Surgical Hosiery Works
BEESTON, Notts.

ESTABLISHED 35 YEARS.

(3)

 **GO-OPERATION**

OUR PRESS ADVERTISING

is daily increasing the demand for

KEENE’S

One-Night Corn Cure

Chemists all over the Country who are co-operating by Window Displays tell us they are enjoying their share of the demand.

Will you write us for details?

KEENE’S ONE-NIGHT CURES, LTD.
52 GRAY’S INN ROAD, W.C.1.

A SATISFIED CUSTOMER IS THE CHEMIST'S BEST ADVERTISEMENT

The Marvel Whirling Spray Syringe



Gold Medal Awarded, Paris, 1902,
by the Société d'Hygiène of France

as the latest and best improvement in Vaginal Syringes. Particular attention is called to the fact that by reason of its peculiar construction the Marvel Syringe dilates and flushes the vagina with a volume of whirling spray, which smooths out the folds and permits the injection to come into contact with and cleansing the entire surface.

Fully Protected by Patents.



You can safely recommend it.

Has no rival on the market, is well advertised, pays a good profit, quality guaranteed. The MARVEL is returnable for exchange if found defective and reported promptly.

Trade price, 125/- per doz.

Retail price, 15/- each.

FASSETT & JOHNSON, Ltd.
86 Clerkenwell Rd., London, E.C.1.

NEW LINES

FOR THE

Coming Season

IN

**MANICURE SETS
DRESSING CASES
SCENT SPRAYS
EBONY TRINKET SETS
POWDER BOWLS
SHAVING STANDS**

ARTHUR BERTON, Limited
15-17 Worship Street, LONDON, E.C.2.

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A. C. COSSOR & SON

Established 1859.

High Class Clinical Thermometers



PATENT



THE ACCOSON ASEPTIC CLINICAL.

The Thermometer is sterilised each time it is placed in the case, and the markings on the tube are not defaced. Any 4" clinical will fit the case.

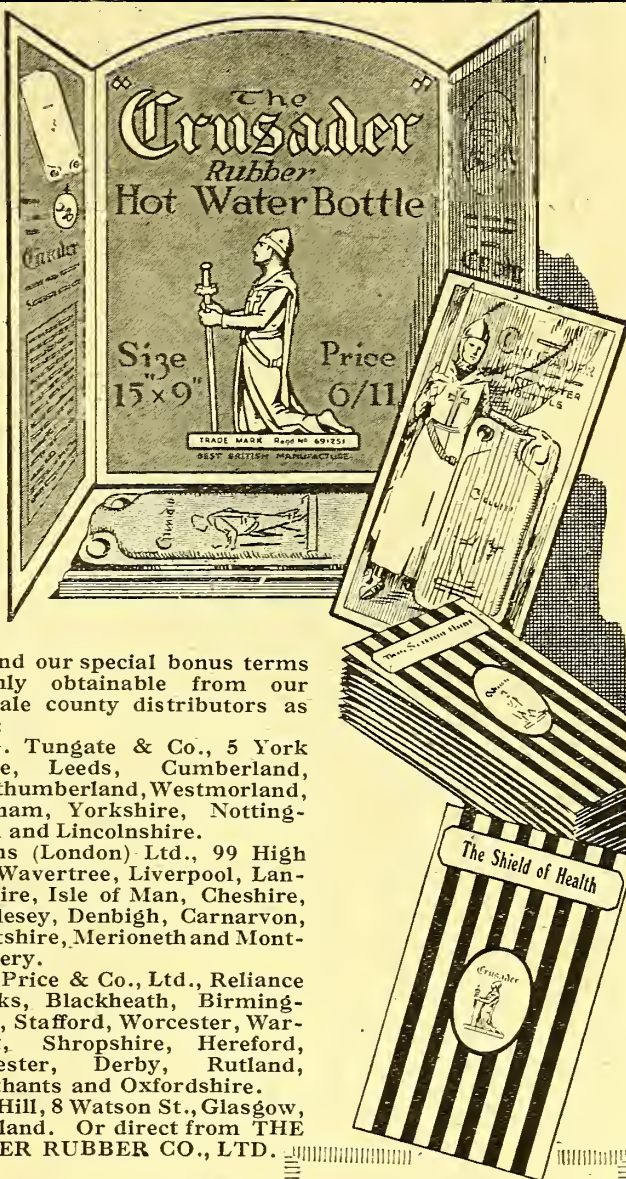
Prices on application or can be obtained from all Wholesale Houses. ORIGINAL PATENTEES OF EASY SET CLINICAL THERMOMETERS. Contractors to all Government Departments.

Accoson Works, Vale Road, London, N.4.

Telephone: Tottenham 1880.

Window Display Assistance

for those who sell
The Crusader



THIS coming winter the Hot Water Bottle business will enter on a new phase. For the first time a proprietary Hot Water Bottle selling at a fixed price will be the subject of a modern advertising campaign. The bottle itself—"The Crusader"—is better in design and in detail than any hitherto produced. And from your view point? There is only one size to stock—the most readily saleable size—15" x 9"; quick turnover is assured. You can offer with it a 12 months' guarantee. The advertising will aim at creating NEW users of Hot Water Bottles—and at sending them to you with the money. In addition we will help you with attractive window and counter display material—and, if you wish, with window dressing assistance.

This and our special bonus terms are only obtainable from our wholesale county distributors as under:

D. G. Tungate & Co., 5 York Place, Leeds, Cumberland, Northumberland, Westmorland, Durham, Yorkshire, Nottingham and Lincolnshire.

Heaths (London) Ltd., 99 High St., Wavertree, Liverpool, Lancashire, Isle of Man, Cheshire, Anglesey, Denbigh, Carnarvon, Flintshire, Merioneth and Montgomery.

A. S. Price & Co., Ltd., Reliance Works, Blackheath, Birmingham, Stafford, Worcester, Warwick, Shropshire, Hereford, Leicester, Derby, Rutland, Northants and Oxfordshire.

Wm. Hill, 8 Watson St., Glasgow, Scotland. Or direct from THE

CRUSADER RUBBER CO., LTD.

"The Crusader" RUBBER HOT WATER BOTTLE

Protected throughout the world.

Awarded the Certificate of the Institute of Hygiene. One size only to stock 15" x 9". Fixed Retail price 6/11. The bottle to show—and to sell.

THE CRUSADER RUBBER CO., LTD.,
62 London Wall, London, E.C.

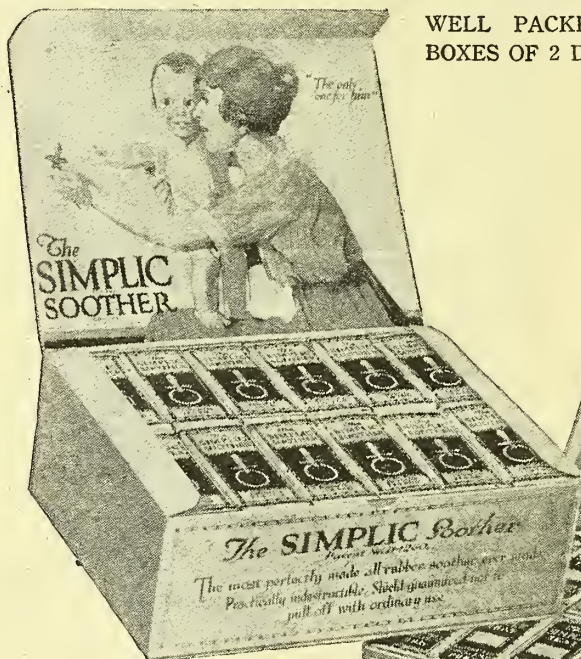
Another "CRUSADER" Success! The Pure Red Rubber SPONGE, immeasurably superior to the cheap foreign importations. Made in 4 sizes:

4½" x 3" x 1½"	retailing at 11d.
5" x 3½" x 2"	" " 1 8
5½" x 3½" x 2½"	" " 2 4½
7" x 4" x 2½"	" " 3 6

Write for details, samples and terms.



Companion Lines



WELL PACKED IN
BOXES OF 2 DOZEN.

WELL PACKED IN
BOXES OF 3 DOZEN.



'SIMPLIC' REGD. SOOTHERS

Made of purest
India Rubber.

No taste or smell.

Practically indestructible.
The most perfectly made
all-rubber soother ever
offered for sale.

'SIMPLIC' TEATS REGD.

Made of purest India Rubber.

In 8 different patterns.

Each in separate carton.

IN BOXES OF 3 DOZEN.

Ask your Wholesaler for "Simplic" REGD.

A real 'BEST SELLER'

THE FINEST
RUBBER HOT
WATER BOTTLE



The
bottle which
has no rival

There isn't a single serious rival to the Ronoleke Hot Water Bottle, either as a bottle or as a seller. This is a serious statement which can be proved quite definitely. About the bottle, by actual use or by questioning a purchaser. About its sales, by selling the Ronoleke or by asking a pharmacist who has sold them for some while.

The Ronoleke stands alone. The best bottle, with a patent neck which cannot be copied, a wonderful turnover and fine profits—all supported by show matter galore and another, larger advertising campaign throughout the Winter.

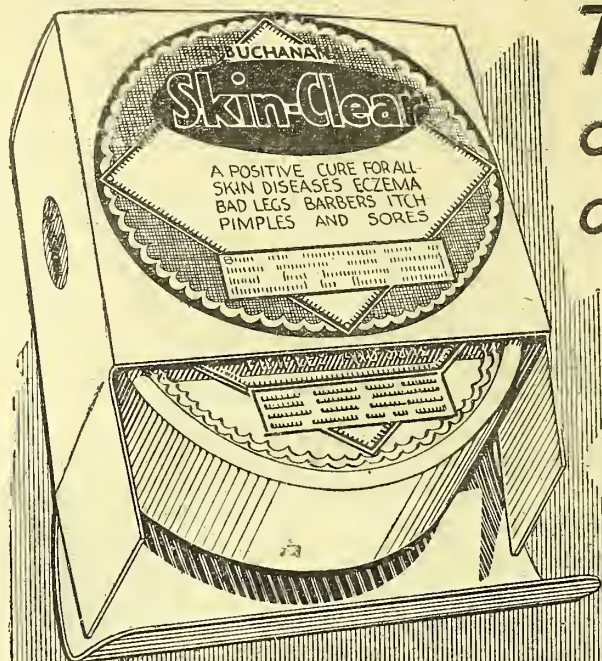
In truth it is a very real "Best Seller."

GET THE

OBTAINABLE
FROM
WHOLESALEERS,
SUNDRIESMEN,
etc.

Ronoleke
TRADE MARK

THE *BEST* RUBBER HOT WATER BOTTLE.



*These two
cartons should be
on every counter.*

To obtain the full benefit of our extensive advertising campaign appearing in many of the leading papers throughout the country, we advise our customers to display this good selling line to advantage.

*An attractive window display
will be sent on request.*

Dr. BUCHANAN'S Skin-Clear

A positive cure for all skin diseases—
Eczema, Barber's Itch, Bad Legs,
Pimples, Ringworm, Chilblains, etc.

1/3 tins (P.A.T.A.) Skin Clear - 10/- doz.

9d. tabs (P.A.T.A.) Skin Clear Soap 6/- doz.

(In cartons) -

Supplies can be obtained through your
usual wholesale house or direct from us.

POTTER & CLARKE Ltd.

DRUG MERCHANTS & MANUFACTURING CHEMISTS
60, 62, & 64 ARTILLERY LANE LONDON E.C.1
AND AT 24 LUNA STREET, GREAT ANCOATS, MANCHESTER



THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C. 4

SEPTEMBER 1, 1923

This Supplement is inserted in every copy of The Chemist & Druggist.

THE SUPPLY OF SUPPLEMENTS.

The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note, therefore, that, in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case

Addressed Wrappers Stamped One Penny

must be sent. Loose stamps will not be accepted.

CLOSING FOR PRESS.

ALL ADVERTISEMENTS INTENDED FOR
INSERTION IN THIS SUPPLEMENT

MUST REACH US
NOT LATER THAN

FIRST POST THURSDAY MORNING.

CHEMISTS' TRANSFERS.

Messrs. Orridge & Co., 56 Ludgate Hill, E.C.

Telephones No.: CITY 2283.

May be consulted at their Offices on matters of Sale, Purchase and Valuation.

1.—**EALING** (Within easy distance of).—Cash Retail Business with small Developing and Printing connection; returns about £5,000 per annum; net profit between £750 and £800; lock-up shop, held on lease at a rental of £55 per annum; terms lease, goodwill and fixtures, £1,100; stock at valuation; part payment retained.

2.—**Old-established Proprietary Business**, producing a net profit £2,500 per annum; scope for extension with increased energy; extensive premises; held on long lease at low rental; price £10,000; further details to applicants furnishing banker's reference.

3.—**LONDON, N.W.** (Few miles out).—Medium-class Cash Retail Business; returns average about £40 weekly at usual prices; large double-fronted corner shop; Vendor estimates value of stock and fixtures at £1,400; lock-up shop; new lease would be granted at a rental of £60 per annum; price £1,600.

4.—**CITY** (Near).—Must be sold; small Drug Stores with Kodak Agency; returns about £10 per week under management; scope for increase by adding N.H.I.; stock estimated by Vendor at about £300; lock-up shop; rent 22s. weekly, inclusive; no reasonable offer refused.

5.—**LONDON, S.W.**—Retail and Dispensing Business, much neglected; returns about £1,200, present rate; well-fitted shop, fully stocked; price about £1,050.

6.—**HOLLOWAY** (Near).—Retail Business, with N.H.I. Dispensing; returns upwards of £20 weekly at good prices; well-fitted, double-fronted shop; fully stocked; rent £52 yearly; price £800.

7.—**SALISBURY** (Near).—Unopposed, with Kodak Agency; returns average £1,000 per annum; estimated value of stock and fixtures £350; terms, £500 on entry and £100 by instalments.

8.—**DEVON**.—Family Retail and Dispensing Business, with Medical Appliances; returns exceed £1,700, with net profit

£550; double-fronted shop, well fitted and stocked; ample living accommodation; new lease will be granted; rent £80; price £1,600.

9.—**SOUTH COAST**.—Handsomely-fitted shop, fully stocked; returns, at the rate of £3,000 per annum, rather more just now; net profit about 25%; Vendor estimates value of stock and fixtures at £2,500, and to effect an immediate transfer will accept £2,600.

10.—**LINCS.**—Ready-money Business; returns about £2,000 yearly; gross profit 40%; well-fitted, double-fronted shop; comfortable residence; price £1,650; vendor's own property, which may be purchased or new lease will be granted.

11.—**WILTSHIRE**.—Unopposed Business, with Branch; returns about £4,000 per annum; net profit over £1,400; one property is owned by the Vendor and the other shows a profit rental; every investigation invited; price £3,250.

12.—**HANTS** (Health Resort).—Good-class Retail and Dispensing Business, present hands 30 years; returns for the past three years average £1,765, present rate, less average net profit £788 per annum; single-fronted shop, well-fitted in mahogany; fully stocked; large house with attractive entrance hall, garden; new lease will be granted; price £1,750.

13.—**LANCS.**—Cash Retail Business, with Kodak Agency; returns £1,600 per annum, under management; in the hands of a principal a net profit of about £400 would be shown; low rent and rates; lock-up shop; price £750.

14.—**WESTERN COUNTY**.—Drug Store, offering good opening for qualified Chemist; returns between £16 and £18 weekly at good prices; bold corner premises, fitted in mahogany and fully stocked; large house with private entrance; rent £30 per annum; price £600, about the value of stock and fixtures.

VALUATIONS FOR STOCKTAKING

Messrs. O. & Co. desire to emphasize the necessity of a periodical Statement of Account by which means alone PROFIT, THE VALUE OF BUSINESS, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties and make SPECIAL TERMS for such services.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C. 4

BERDOE & FISH

WILLIAM S. FISH.

*Valuers and Transfer Agents,***41 Argyle Square, KING'S CROSS, W.C.1.**

(One minute from St. Pancras and King's Cross Stations.)

1.—**S. DEVON.**—Good-class Family and Dispensing Business in best residential suburb of important town; returns £1,730; excellent profits; good opening for Photo and Optics; splendid house; stock and fixtures worth £1,000; price £1,600.

2.—**SOUTHEND-ON-SEA.**—Good-class light General Retail, in main road position; Returns £1,250; plenty of scope; convenient house; modern, well-fitted shop, fully stocked; price £1,000, or near offer; personally recommended.

3.—**WEST OF ENGLAND.**—Cash Drug Store, in small country town; returns between £800 and £900, qualified man would soon do £1,500; very low rent; fine corner shop, well fitted and stocked; large house; price only £600.

4.—**LONDON (WESTERN SUBURB).**—Good class light Retail, with excellent Photographic trade; returns about £3,000; net profit £750; main road position; low rent; large lock-up Pharmacy, heavily stocked; valuation terms arranged, about £2,000, third can remain.

5.—**LONDON (SURREY SUBURB).**—Medium-class light Retail, no near opposition; returns £1,400; net profit about £450; modern, well-fitted shop; stock worth £480; low rent; valuable lease; six rooms, bath, and good garden; price £1,250.

TO INTENDING VENDORS

SPECIAL NOTICE.—We are in immediate want of sound businesses in all parts from £800 to £3,000, cash buyers waiting, speedy sales effected without publicity. Correspondence cordially invited.

STOCKTAKING VALUATIONS.

We are now booking dates for September and October at special reduced terms and invite early applications.

Our Mr. Fish may be consulted daily on all questions relative to sale purchase and valuation.

ESTABLISHED 1870.

Telephone: 651 Muscum.

The Association of Mnfg. Chemists

— LIMITED —

Head Offices—26-28 Kimberley House,**Holborn Viaduct, London, E.C.1**

(and at 2 Eixteth Street, Liverpool)

PARKIN S. BOOTH, Accountant and Valuer.**PHONE: CITY 6942-43.****WE HAVE THE FOLLOWING BUSINESSES FOR DISPOSAL.**

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2.—**LONDON, N.**—Good Retail Business, taking £1,500 per annum; well-stocked and fitted; little opposition; two good living rooms; seven years' lease, with rent, £52 per annum; inclusive price, £950.

3.—**FOREST GATE.**—Excellent fitted and well stocked up-to-date Pharmacy, situate in a central position; lease 20 years at £450 per annum; premises consist of shop and convenient dwelling accommodation; good scope. Full particulars on application.

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STOCKTAKING.—Now is the time to take your stock. Perhaps it is too much trouble or you have not the time to spare. Then why not consult the Practical Firm who will do this work for you for a small inclusive fee, without interference with your work? For full particulars write as above.

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ADVERTISER wishes to purchase sound Cash Business, Midlands or South Coast, doing about £30 weekly; would entertain partnership or managership, view succession. Particulars treated in strict confidence. Replies, 172/22, Office of this Paper.

ADVERTISER desires to purchase good sound Business, which will bear strict investigation; Lancashire or adjoining counties preferred, but not essential; immediate transfer not necessary; willing to wait long period for suitable business, or would assist, with view to taking over, Chemist having good business and wishing to ease off; cash ready. Particulars in strict confidence, to "Sincere," 172/11, Office of this Paper.

CHEMIST desires to purchase a Business, taking £25-£30 weekly; must have living accommodation; West, South, or South-West Midlands; terms, value of fittings, goodwill, and stock, which must bear investigation; cash available. All replies with particulars treated with strict confidence by "Bona-Fide," 170/37, Office of this Paper.

OPEN to purchase genuine Business in inner suburban London with good house available; Surrey side preferred; terms cash to valuation about £500, with mutual agreement as to remaining items. Alternatively suitable premises to establish first-class chemist's business in similar district. Correspondence replied to. Write 174/1, Office of this Paper.

PHARMACIST, young, with £2,000 capital, wants a genuine, good-class business in Scotland or in the Midlands or N. of England; must bear fullest investigation; would entertain partnership with view to early succession. Replies in strict confidence to 174/3, Office of this Paper.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

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23 Battery Road, SINGAPORE, S.S.

(Incorporated in Straits Settlements)



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Netherlands Trading
Society.

London Correspondents:
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& Union Bank of
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DRUGGISTS**

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AGENCY required by real live man with own car working
eight Midland Counties; Birmingham centre; first-class
section and excellent references. Reply "E. H. C." 171/14,
Office of this Paper.

AGENTS with established connections required for Soaps and
Perfumes of leading Paris manufacture to operate whole
British Isles, or District Agents operating preferably from
don, Manchester, Birmingham, and Glasgow; state qualifi-
cations. 170/35, Office of this Paper.

APPLICATIONS invited by large firm of Importers from live
Agents with sound connections amongst Wholesale and
all Chemists; commission basis only; agents to be resident
or near following towns (or equally centrally situated for
king surrounding district): York-Leeds-Preston, Man-
chester-Liverpool-Birmingham-Nottingham, Bristol or Glou-
cester-Bath-Brighton-Norwich, or Cambridge-London (North and
th)-Bedford. Outlet required for various Pharmaceutical
specialties, including Olive Oil, Castor Oil, Surgical Dressings,
high-grade French Perfumery, and Toilet Requisites; generous
commission to right men. Apply in first instance with full
details, 30/974, Office of this Paper.

RUG and General Trade.—Irish Free State. Advertiser,
resident Dublin, 18 years' Travelling experience, thorough
wledge Drug and General business, open for first-class
agencies; highest references. Apply, in confidence, 170/9,
Office of this Paper.

PHARMACEUTICAL Chemist (Irish Free State) is open to
receive Agencies; would undertake packing if necessary.
132, Office of this Paper.

WANTED, active Agents with strong connection among Hos-
pitals, Institutions, etc., in England to sell Lee's Lysol
(Lk); lowest prices on the market. Apply, in confidence,
for full particulars, United Kingdom Chemical Co., Ltd.,
Berkeley, Glasgow.

BUSINESSES FOR DISPOSAL.

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CARDIFF.—An old-established Chemist's Business in one of
the main roads of this prosperous city; must be sold imme-
diately owing to ill-health; excellent opening for progressive
man; well-fitted shop and good house attached; no N.H.I. or
Photography; present takings £1,200; could easily be doubled;
best offer over £500 secures this profitable business. "Aeron,"
172/6, Office of this Paper.

LONDON, E.—Old-established Business in main road; same
L hands 13 years; good all-round trade; Kodak Agency
attached; turnover last three years £2,200, £2,300, £2,000
respectively; long lease; nice shop and house; side entrance;
electric light throughout; price £1,200, or near offer; owner
going abroad. P.C.B. 67/4, Office of this Paper.

LONDON, S.W. District.—Old-established Business; Family
L and good-class Dispensing; in busy shopping centre on
main London road; Kodak Agency; returns last two years
£2,382 and £2,455; district rapidly growing; 19 years' lease
unexpired; option to purchase freehold residence above; excep-
tional opportunity. 173/1, Office of this Paper.

OLDHAM.—An excellent opportunity occurs to acquire a
really genuine first-class Chemist's Business doing large
turnover; splendid stand; handsomely fitted; heavily stocked
(vendor's own property); good living accommodation; imme-
diate possession; everything about £3,000. Also genuine
Partnership proposition, Leeds, £500 required. Brierley,
Chemists' Valuer, 135 Queen Street, Newton Heath, Manchester.

SCARBOROUGH.—Old-established Chemist and Druggist Busi-
ness, since 1848, in one of main arteries of this prosperous
resort; excellent opening for progressive man; well-fitted shop
with house and detached warehouse behind; price, including
freehold property, fixtures and goodwill, £3,000; stock at valua-
tion; for sale by order of executors. Sole Agents, Ward Price &
Co., Auctioneers, 48 Westborough, Scarborough.

SHEFFIELD.—Drug Stores, middle-class district; good living
S accommodation; electric light; takings last year over
£1,500; nicely fitted; fixtures, etc., £375; stock at valuation.
171/7, Office of this Paper.

SOUTH-WEST COAST.—Mixed Retail Business, in pleasant
S seaside town; returns exceed £1,600; nicely-fitted shop, fully
stocked; best situation on sea front; low rent; no near oppo-
sition; plenty of scope for development; price £1,200; no living
accommodation; also to purchaser of the foregoing option of
acquiring Branch Business, half-mile away; unopposed; Mixed
Retail; returns £1,100; good double-fronted shop, fully stocked;
rent £40; price £450. Apply 172/9, Office of this Paper.

YORKSHIRE.—Light Retail and Photographic Business in
Y main thoroughfare; returns £2,000 p.a.; scope for increase;
nicely fitted and well stocked; electric light throughout; five-
roomed house attached; rent and rates, £42 p.a.; lease can
be arranged; stock £900, fittings £300; price £1,300. Further
particulars on receipt of hanker's references. 172/8, Office of
this Paper.

FOR Sale, Surgical and Orthopaedic Business in North of
L England city; approximate population within five miles
400,000; no other similar business within 10 miles; rent cheap;
in main thoroughfare; could adopt Chemist Business in part
premises; good connection; price reasonable for early purchaser;
ill-health reason for disposal. Apply in first instance to 164/9,
Office of this Paper.

FOR Sale, Business Premises and Dwelling-house, Warehouse
L attached, right in centre of Borough of Brecon.—Box 99,
"Express" Offices, Brecon.

IMPORTANT Midland City. — Old-established, neglected
I Chemist's Business in thickly populated working and
middle-class district; opposition nominal; general Drug, Dis-
pensing; opening for N.H.I., Optical and Dental; cash trade;
commodious shop; long lease; excellent opportunity for pushing
man; easy lease, fair stock, fittings, £600. 167/4, Office of this
Paper.

MODERN Business for sale; Dispensing, General Retail and
M Photographic (Kodak Agency) large city in West of
England; industrial neighbourhood; turnover approaching
£2,000; can be increased under personal supervision; part pay-
ment could be arranged if necessary; terms on application.
172/24, Office of this Paper.

NAMES AND ADDRESSES.

When sending advertisements for any of the sections in this Supplement, advertisers—as a guarantee of good faith and not necessarily for publication—should always give their names and addresses. It sometimes occurs that this rule is not followed and delay and disappointment ensues. Strict attention to this detail will be appreciated.

SITUATIONS WANTED.

RETAIL.

[HOME.]

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

A.A.—DISENGAGED.—Managing Assistant, Locum or permanency; unqualified. "Borax," c/o Mr. Crowther, M.P.S., High Street, Mayfield, Sussex.

A LADY Dispenser (Hall) requires position now or near future; long experience with Chemists, Doctors, Institutions; also knowledge Book-keeping and Typewriting; excellent testimonials. "S," 45 Nimrod Road, Streatham.

A GENTLEMAN, single, qualified, 29, seeks post as Assistant; S.W. district preferred; moderate salary; disengaged; best references. Address "Galenicals," 48 Devereux Road, Wandsworth, S.W.11.

A CTIVE, experienced, qualified, 59, desires engagement, any capacity; town or provinces; disengaged September 3. "Aspirin," 3 Ranelagh Road, Lupus Street, S.W.1.

A DVERTISER, fully qualified Chemist, with all-round exceptional experience, seeks a permanent Management where brains and ability will be given some scope; highest references and qualifications. "Codex," 216 Stanstead Road, Forest Hill, S.E.

A S IMPROVER.—Chemist's son, 18, desires situation; one year's experience; passed Preliminary; all-round experience in good business desired. Temperton, 101 St. Mark's Road, Bush Hill Park, Enfield.

A S Manager; 30; qualified; Lancashire or Yorkshire preferred; good references and experience; Photography, etc. 173/15, Office of this Paper.

A S Locum; disengaged September 8; highest references and experience. "Locum," c/o Mr. Oram, Ph.C., Romsey, Hampshire.

A S Locum or Manager; qualified; good experience all branches; disengaged September 2. "Pharmacist," 71 Trafalgar Road, Wallasey.

A S Manager or Assistant; good all-round experience in all branches; country preferred; age 38; disengaged shortly. "Locum," c/o Norfolk, Caterham.

A SSISTANT, age 38, height 5 ft. 10 in.; West-End and suburban experience; well up Photo., Dispensing, etc.; convincing Salesman, good Window-dresser; outdoor; unqualified; disengaged; good references. "Chemicus," 39 Medora Road, Brixton Hill.

A SSISTANT, unqualified, age 27; Counter, Dispensing, Photography; 8 years' experience. 171/2, Office of this Paper.

A SSISTANT or Locum; disengaged September 15. "Aspirin," 2, High Street, Gillingham, Kent.

A SSISTANT (21), male, requires post; first-class Dispensing experience; unqualified; free any time. Smith, 9 Dale Road, Buxton.

A SSISTANT, 23; Part II. student; 7 years' experience; disengaged shortly; South Coast preferred. Horlington, "The Pharmacy," Seaview, I.W.

A SSISTANT; unqualified; middle-aged; Dispensing or Stock; satisfactory reference; outdoors; disengaged. Jones, 69 Aunesley Avenue, Colindale, Hendon, N.W.9.

B OOK-KEEPING and Clerical Work; day or evenings. Apr "X. Y. Z.," 152/22, Office of this Paper.

C HEMIST, qualified, 25, desires change (at present managing as Manager or Assistant; good experience, Dispensing, Photography, etc. (willing to go to S. Africa); London or Norfolk preferred. "Edinburgh" (P.C.B. 66/36), Office of this Paper.

C HEMIST, qualified, elderly, desires engagement as Manager at once; prescribing, photography, optics, etc.; permanent desired. "Aspirin," 30/975, Office of this Paper.

D EVON.—Unqualified, 21; high-class London experience; Dispensing, Photography; highest references; disengaged October 13. "E.," 78 Derinton Road, S.W.17.

D ISABLED, 27, unqualified, pre-war registered student, waiting Clerical work; any assistance. Gray, 17 Percy Road, W.

D ISENGAGED September 22.—Lady; qualified; experienced Dispensing, Counter; Liverpool-Cheshire districts preferred. Jones, 1 Sneyd Terrace, Silverdale, Staffs.

D ISENGAGED, lady, 21, good experience Counter, Dispensing, Photography, Window-dressing; Midlands preferred. W. 11 West Castle, Bridgnorth, Salop.

D ISPENSER, lady, Hall qualification, 5 years' practical experience, desires post, Doctor, Institution, or Retail; reach of Lymington. 171/1, Office of this Paper.

D ISPENSER and Book-keeper, 40, requires permanency Locum; 20 years' experience; excellent references. Stru 2 London Road, Hailsham.

D OCTOR'S Dispenser, Book-keeper, Dresser (male); experienced; part Medical Curriculum. "Waddington," Devons Road, Bow, E.5.

E LDERLY Chemist requires situation (temporary or permanent); Locum, Cover or other position. "Pharmacist," Salford Road, Ainsdale.

G ENTLEMAN requires evening situation (including all day Saturday) early October; 15 years' West-End experienced sharp Dispenser and Counterman; any capacity. "Alpha," Galton Street, Queen's Park, N.W.6.

G ENTLEMAN in business some years requires post as Manager or Senior in good Pharmacy; abstainer; permanency; well educated; good chance for anyone requiring capable steady man. 171/11, Office of this Paper.

G IRL, 17 years of age, with three years' experience waiting Chemist, requires a position; Manchester district preferred. 172/15, Office of this Paper.

J UNIOR Assistant; tall; 20; 4 years' Dispensing, Photographic, and Window-dressing experience; South Wales preferred; excellent references. W. H. James, c/o "Chemist" Tumble, Llanelly.

J UNIOR, 19, tall; good retail and Counter experience; a Photography; disengaged now. 170/34, Office of this Paper.

J UNIOR (lady), unqualified, requires situation; recently finished three years' apprenticeship Counter and Dispensing; good references. 169/3, Office of this Paper.

J UNIOR Assistant (20) seeks opening; good all-round experience; height 5 ft. 11 in.; well recommended. Herbert, Doughty Street, W.C.

L ADY Dispenser-Book-keeper (Hall) requires post as Doctor; several years' experience. "O.," 39 Radnor Row, Harrow, Middlesex.

L ADY Dispenser (Hall), experienced, requires post for September; Doctor or Chemist. Miss Smith, The Ridgeway, Downton, Salisbury, Wilts.

L ADY, Minor, desires post, Dispensing or Counter; slight knowledge of Photography. 170/36, Office of this Paper.

L ADY Dispenser (Hall certificate) desires post with Doctor or Chemist; used Counter work and Window-dressing; knowledge Photography, Book-keeping, Shorthand; good references. 171/18, Office of this Paper.

L ADY desires post with Chemist; seven years' experience Counter and Dispensing; country, or near Somerset. Ap E. Williams, 1 Oriel Terrace, Weston-super-Mare.

L ADY Dispenser (Hall) desires post; experience with Doctor and Chemist. 173/19, Office of this Paper.

L OCUM (50); qualified; experienced; excellent reference; disengaged September 8. "Pharmacist," Messrs. Greaves Pharmacy, 591 Old Kent Road, S.E.

MUM, permanency (lady); twelve years' Doctors' and Hospital Dispensing; disengaged September 6. Barnett, 18 Wick Road, Hove, Brighton.

MUM; disengaged September 17; moderate salary; qualified; sound Dispensing and Counter experience; best reference "Chemist," 4 Ormond Terrace, Cheltenham.

MUM; qualified; first-class reference; disengaged after September 14. "D.," 141 Manchester Road, Southport.

MUM (45); abstainer; sold own business; Registered Dentist; experience everything; disengaged 10th. Had 65 Lea Road, Northampton.

MUM; unqualified; strictly sober habits and thoroughly capable; free September 1. "E.," 131 Mount View N.4.

NDON District; Dispenser (Hall) requires post, Doctor, Chemist or Institution; seven years' experience. 172/33, of this Paper.

NAGER; qualified; 1912 qualification; good all-round experience, London and Continental; well up in French lines; speaks French; disengaged end September. Apply "macist," 59a Portsdown Road, Maida Vale, W.9.

NAGER; qualified; Locum or permanent; good general experience; disengaged October 6. Furnival, 28 Melrose, Cricklewood.

NAGER or Assistant; 45; unqualified; married; experienced. "Rhei," 2 Vincent Crescent, Brampton, Chester.

NCHESTER.—Keen, unqualified requires post in Manchester; smart at Windows and Counter; tall; good range; excellent testimonials; disengaged shortly. 172/18, of this Paper.

P.S., F.S.M.C., 25, at present Assistant Manager, desires change in the near future; excellent reference and all-round experience. 171/8, Office of this Paper.

P.S., F.S.M.C., etc., young, energetic, good all-round experience, desires Managership or other responsible; splendid references; disengaged shortly. Reply, g terms, to 172/36, Office of this Paper.

LE Medical Dispenser, Surgery help, Book-keeper; good sound experience and references. Cotes, Westfield House, 2.

NOR Student requires part-time position; good references; London district; S.W. preferred. For full particulars, apply 3, Office of this Paper.

RTIME.—Student requires situation as Dispenser; evenings; S.W. preferred; excellent references. H. W. Hockney, 10, King Street, Grimsby.

ALIFIED.—Manager; London only; disengaged September 17. "Chemist," 44 Devonshire Road, W.4.

ALIFIED, 8 years' first-class London and Provincial experience (Dispensing, Photography, Counter and Windowing), desires position of Manager or Senior. "Banks," 17, Office of this Paper.

ALIFIED, age 28, has occasion to visit London, and would accept post as Manager or Assistant for one or two from September 17; terms moderate; excellent reference. Apply, "Cinchona," 36 Culme Road, Clubmoor, Liverpool.

ALIFIED; elderly; Hospital or Institution; 11 years' Hospital experience. "Chelsea," 22 Bramerton Street, E.3, S.W.3.

ALIFIED man requires post in first-class business; single; age 28; salary £5 weekly. Apply 173/9, Office of this Paper.

ALIFIED (Medallist) requires permanency; Somerset preferred, not essential; exceptional Dispensing; all-round experience. Moore, c/o Davis, Pharmacy, Lyndhurst.

ALIFIED Manager-Assistant, 50; single; tall; abstainer; capable, reliable, permanency; Essex preferred. 174/4, of this Paper.

ALIFIED, 29, reliable, capable, good-class Dispensing, Counter, Window-dressing, Photography; London experience; desires progressive position in West End or City business; excellent references; disengaged in a month; 173/14, Office of this Paper.

TYNESIDER, disengaged October, unqualified, keen and adaptable, 8 years' good-class Dispensing, Counter, and Photography, seeks permanency in such; sound references; North preferred. "Capsicum," Thelma, Waterbank Road, Sheringham.

UNQUALIFIED, elderly, experienced Assistant, active; well up in Dispensing and Panel work; temporary. Apply "W. M.," 32 Wellington Street, Thame, Oxon.

UNQUALIFIED, 23; 5 years' good experience, Dispensing and Counter; London area. "R.," 121 New King's Road, S.W.6.

UNQUALIFIED (21) seeks position in high-class Pharmacy; Manchester preferred, not essential; present situation two years; excellent references. "Swiftsure," 173/5, Office of this Paper.

UNQUALIFIED; middle-age; excellent references; good-class experience; disengaged shortly; £3 per week (outdoor). "E. T.," 26 Cordon Street, Wisbech.

WINDOW-DRESSER, with Photographic and Counter experience, seeks permanent situation, with good prospects of advancement. 173/26, Office of this Paper.

YOUNG Lady Assistant requires situation, Liverpool or district; unqualified; high-class Dispensing experience. Bentley, 27 Surrey Street, Norwich.

YOUNG Lady desires post (Kent); 10 years' experience Drug, Perfume, Toilet Requisite and Photographic dept. 173/21, Office of this Paper.

WHOLESALE.

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

A BERTH required, man, 33, good experience Buying, Selling, Shipping, Travelling with best houses. "B.," 33 Arvon Road, Highbury, N.5.

A CAPABLE man; disengaged; 20 years' experience in Perfumery and Toilet Preparations; Warehouse or Manufacturing; home or abroad. 129 Lewisham Road, S.E.13.

A REPRESENTATIVE, with extensive live connection London Chemists and Stores, is open to represent high-class firm of repute; or agency for known Proprietary; undeniable credentials. Particulars to "R. E. P.," 173/8, Office of this Paper.

A ANALYTICAL Chemist, 35; single; 4 years' war service; educated Public School; B.A., Inter. B.Sc. Engr. and Chemistry; some experience as Chemist and Assistant Manager, Paper Mills; thorough knowledge of Analytical Chemistry; willing to take any post. M.L. 1606/23, Office of this Paper.

C LERICAL post, or as Representative; gent., age 30; many years' Drug trade experience, including several years in New York and Petrograd; Russian and German languages; moderate salary for progressive opening; highest references. G. Linder, 198 Queen's Road, Bayswater.

C LERK seeks position as Traveller for expenses and commission; 20 years' Wholesale experience; no connection; single; age 37 years; genuine; abstainer. "W.," 27 Carninia Road, S.W.17.

DISENGAGED September 14; man, single, 26; over eight years' experience Patents, Drugs, Sundries, etc., seeks situation; warehouseman, checker, any capacity. "Scope," 21 Warren Street, Pentonville, N.1.

D RUG Traveller, 13 years' experience, calling on Medical Profession, is open to represent first-class house; North and South Wales. 173/31, Office of this Paper.

EX-OFFICER, 34, desires post as Business Manager, Organiser, Representative, Salesman, Interviewer or General Secretary; thorough knowledge of Chemistry, Photographic Equipment, Surgical Goods, etc.; is willing to take any post. M.L. 19088, Office of this Paper.

EXPERIENCED Salesman and Propagandist for Pharmaceutical Specialities, specially well introduced in Switzerland, Austria, Germany, France, Belgium, speaking five languages, single, desires re-engagement in well-established firm; excellent references as to character, etc. Theo. G. Gloor, at the Pharmacy Bouchery, Ostend, Belgium.

LABORATORY; 20 years' experience; good knowledge of Toilet Galenicals, and general Laboratory work; can take charge if required. P.C.B. 67/8, Office of this Paper.

THE NATIONAL DRUG & CHEMICAL UNION

(Incorporating the National Association of Chemists' Assistants)

AIDS AND PROTECTS

those employed in all Branches of the Drug Trade.

(Public Services—Retail—Wholesale—Manufacturing)

WRITE FOR PARTICULARS—H. R. NIGHTINGALE, M.P.S.

General Secretary,

149 Newington Causeway, LONDON, S.E.1

QUALIFIED Pharmacist, with B.Sc. (Hons. Chemistry); 4 years' high-class retail experience; 3 years' manufacturing; desires post with wholesale or manufacturing house. 168/14, Office of this Paper.

REPRESENTATIVE, with live connection amongst Chemists in South-Eastern Counties, sound knowledge of Druggist Sundries, Toilet and Packed Goods, 12 years leading London house, excellent record and references, now disengaged, desires appointment as Representative with well-known house. 173/39, Office of this Paper.

SURGICAL.—Forewoman requires situation in Truss or Belts; 20 years' experience. P.C.B. 67/9, Office of this Paper.

TECHNICAL and Research Chemist, 33; married; 5 years' war service; educated Public School and Technical College; Diplomas; has held post as Chief Assistant to leading Consulting Chemist five years; extensive experience Laboratories; specialises Acids, Oils, Sugar, Metallurgy; good organiser; willing to take any post. M.L. 1469/23, Office of this Paper.

TRAVELLER, introducing special line, desires to share running expenses and join Representative owning car; calling upon Chemists, London and Provinces. Apply, P.C.B. 65/39, Office of this Paper.

UNQUALIFIED; 34, tall, with ability and enterprise, seeks a position in the Wholesale; 16½ years' excellent Retail experience. 172/27, Office of this Paper.

WANTED, post as Representative to house calling upon Medical Men and Institutions; Medical and Pharmaceutical training; experienced. 172/10, Office of this Paper.

[COLONIAL, INDIAN AND FOREIGN.]

ASSISTANT, 6 years' experience in good-class Retail, Dispensing, N.H.I. and Photographic business, wishes position abroad (not Europe); free September 17; qualified except in Materia Medica; age 24; tall; excellent references. "C. H. D.", 3 Lansdowne Crescent, Malvern.

PAINTER, German, 42, single, specialist in writing and labelling for Pharmacy bottles, experienced in all branches of that kind of work, desires permanent position with British or American firm; is open to partnership with a view to an old or new business, in any part of the world. Address, Gedlich, Postamt Vikrisch (Kreis Gortitz), Germany.

QUALIFIED, 23; abroad; good references; Manager or Assistant. Hancox, 50 Woodlands Road, Ansdell, Lytham, Lancs.

SOUTH FRANCE.—Qualified (50) English Pharmacist desires season engagement; knowledge French and German. "Pharmacist," 3 Rectory Road, Stoke Newington, N.

MISCELLANEOUS.

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